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6 February 2014

Ms. Cynthia Ruelas
United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105

Subject: *Cleanup Completion Report, Buildings 10 and 15
United Airlines San Francisco Maintenance Center
San Francisco International Airport*

Dear Ms. Ruelas:

ERM-West, Inc. (ERM) has prepared the attached *Cleanup Completion Report* on behalf of United Airlines Inc. (United). The report presents the investigation and remediation work performed at Buildings 10 and 15 at United's San Francisco Maintenance Center (SFMC) at San Francisco International Airport. United appreciates your time and efforts to work collaboratively to establish the data quality objectives, participate in scoping meetings for this project, and visit the site during cleanup operations. Your input has assisted us in conducting a comprehensive cleanup in Buildings 10 and 15.

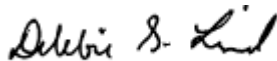
Consistent with our numerous discussions, this work was performed with the two objectives of pro-actively cleaning and flushing the industrial waste (IW) lines and drains at the SFMC, and conducting an assessment of the potential presence of polychlorinated biphenyls (PCBs) associated with SFMC operations through the use of dust wipe samples. As further discussed during the recent 6 November 2013 meeting at your San Francisco office, United has accomplished these goals. United performed extensive remedial action as well as follow-up investigatory activities, and conducted the critical risk evaluations using approved screening levels. The key findings of this work are as follows:

- The high completion rates of the line cleaning, combined with analytical results of confirmation samples of liquids and wipes support the closure of the IW lines and drains in Buildings 10 and 15. As described in the report, remediation of the lines is sufficient and no further remediation of the potential risks posed by PCBs is necessary, thus warranting United State Environmental Protection Agency (USEPA) Region IX approval of the effective closure of these IW lines and drains.
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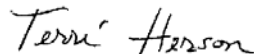
- Results of the supplemental investigation using dust wipe samples indicate that additional characterization of two small portions of the Building 10 interior (including additional dust sampling) is needed to support closure. United will prepare a Workplan for Phase II Dust Sample Collection focused on the two localized areas of interest in Building 10 to support risk assessment. No further investigatory activities are needed in Building 15, as indicated by no detections of PCBs in 10 dust samples collected from Building 15.
- The data support in-place closure and sealing of the former utility ports in Building 10. A separate letter request will be prepared to provide USEPA with a summary of the proposed closure activities including cement-sealing and resurfacing for review and approval by the Agency.

United appreciates your review of the attached Cleanup Completion Report and looks forward to discussing the above mentioned closure requests and forthcoming dust sampling plan with you. United and ERM are available for a conference call or in-person meeting to support your review or to discuss your comments.

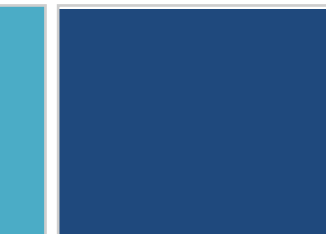
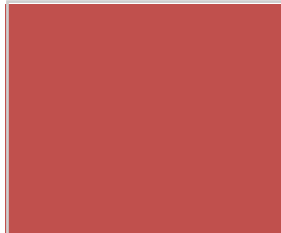
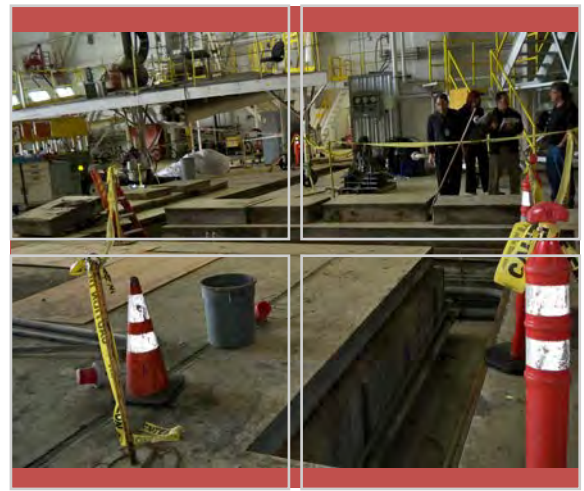
Sincerely,



Debbie Lind, P.G.
Partner



Terri Herson
Program Director



Prepared for
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6 February 2014

Cleanup Completion Report Buildings 10 and 15

United Airlines San Francisco Maintenance
 Center, San Francisco International Airport

Prepared by



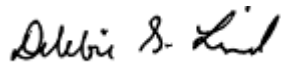
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Cleanup Completion Report

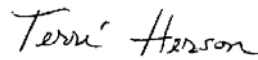
Buildings 10 and 15

United Airlines Inc.
San Francisco Maintenance Center

6 February 2014



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LIST OF ACRONYMS

ERM	ERM-West, Inc.
IW	Industrial Waste
µg/100 cm ²	micrograms per 100 square centimeters
µg/L	micrograms per liter
MRP	Metals Removal Plant
NBSU	North Bayside System Unit
PCB	polychlorinated biphenyl
PPE	personal protective equipment
psi	pounds per square inch
RAO	remedial action objective
RBSL	Risk-Based Screening Level
SFMC	San Francisco Maintenance Center
SFO	San Francisco International Airport
USEPA	United States Environmental Protection Agency
WTC	Committee of the World Trade Center
WWTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

Consistent with the phased assessment and remedial approach adopted for this project and pursuant to the approved Workplan for Polychlorinated Biphenyl (PCB) Investigation, Risk Based Screening and Remedial Action, this Cleanup Completion Report documents the successful completion of the following investigatory and remedial actions in Buildings 10 and 15 at United Airlines Inc. (United) San Francisco Maintenance Center (SFMC) at the San Francisco International Airport (SFO) between 21 May and 10 July 2013:

- Cleaning and flushing of the industrial waste (IW) lines and drains;
- Cleaning of the former utility ports; and
- Supplemental sampling of dust.

As discussed more fully in this report, the effective implementation of the Workplan and the completion of extensive remedial work in Buildings 10 and 15 yielded the following key findings and conclusions.

IW Lines and Drains

Building 10 remediation work:

- Achieved an overall completion rate of 94% for the total length of IW lines and laterals cleaned; and
- Post-confirmation samples indicate that PCBs were reported as non-detect in the rinsate and not detected in the drain grate wipes above site specific risk-based screening levels (RBSLs).

Building 15 remediation work:

- Achieved an overall completion rate of 97% for the total length of lines and laterals cleaned; and
- Post-confirmation samples indicate that 3 of 12 rinsate samples slightly exceeded site specific risk-based RBSLs. PCBs were reported as non-detect with the exception of results from one drain grate wipe, which was below the RBSL.

The data support no additional cleaning activities, and the finding that remediation of the IW system in Buildings 10 and 15 has been completed.

Utility Ports in Building 10

RBSL exceedances are present in these floor-level ports based on confirmation sample results. The utility ports are restricted with lids, inaccessible, and not in use. The data support in-place closure and sealing of the former utility ports.

Dust

Building 10 assessment work:

Ten dust samples were collected from each building. The results include localized sample results in isolated areas in Building 10 above the screening levels. Additional dust sampling is warranted in these two localized areas of interest in Building 10.

Building 15 assessment work:

Of the 10 dust samples collected from Building 15, there were no PCBs detected. No additional dust sampling /assessment work is necessary in Building 15.

As noted in the report, United developed and utilized site specific RBSLs as conservative screening levels in its assessment and remedial work in Buildings 10 and 15. These screening levels also served as Remedial Action Objectives (RAOs) for the Building 10 and 15 remediation activities to expedite the completion of this initial phase of remedial work at SFMC. United will continue to evaluate the significance and appropriate use of the RBSLs as additional assessment and remedial work is pursued in subsequent phases of this project.

Based on the extensive remedial activities completed in Buildings 10 and 15 and the results of comprehensive confirmatory sampling, United is requesting with this report the following regulatory determinations from USEPA:

- Regulatory approval of the cleanup and closure of the Building 10 and 15 IW lines and drains;
- Regulatory approval of the cleanup and closure of the utility ports in Building 10. In support of this closure request, United will submit a supplementary letter summarizing additional closure activities for these utility ports, including the cement-sealing and resurfacing of these ports; and
- Approval of a Workplan for Phase II Dust Sample Collection to be submitted by United to address two localized areas of interest in Building 10.

1.0 INTRODUCTION

2.0 On behalf of United Airlines (United), ERM-West, Inc. (ERM) has prepared this *Cleanup Completion Report* for Buildings 10 and 15 at the San Francisco Maintenance Center (SFMC), San Francisco International Airport (SFO), San Francisco, California (site; Figure 1). This report provides the results of investigation for polychlorinated biphenyls (PCBs), risk-based screening, and remedial action at the site. The following work was conducted between 21 May and 10 July 2013:

- Cleaning and flushing of the industrial waste (IW) lines and drains;
- Cleaning of the former utility ports; and
- Supplemental sampling of dust.

The scope of the cleaning and investigation was presented in the *Revised Workplan for Polychlorinated Biphenyls (PCB) Investigation, Risk-Based Screening, and Remedial Action for Buildings 10 and 15* (Workplan, ERM 2013). The Workplan was submitted to the United States Environmental Protection Agency (USEPA) on 28 February 2013 and approved by the USEPA by letter dated 17 April 2013. The Workplan was prepared in response to requests by the USEPA for cleanup and additional assessment of the potential presence of PCBs at the SFMC due to historical limited detections. Results of the previous investigation for PCBs at Buildings 10 and 15 appear in the *Draft PCB Screening Report, San Francisco International Airport, United Maintenance Center Facilities, San Francisco, California* (APEX, 2005). In this 2005 report, isolated PCB detections occurred in liquids and sediments in floor drains and were used to focus the 2013 scope of remediation and investigation at Buildings 10 and 15.

1.1 PURPOSE

The cleaning and investigation at SFMC was the result of collaborative meetings with USEPA involving discussions of the risk assessment approach, an updated site conceptual model, and development of SFMC-specific risk-based screening levels (RBSLs). USEPA provided input and direction on the potential exposure pathways, receptors and calculations for the RBSLs. The project RBSLs, which serve as the data quality objectives (DQOs), are discussed in Section 3.0.

This Cleanup Completion Report is provided to USEPA to document the actions completed at the site between 21 May and 10 July 2013 and present analytical results of post-remediation confirmation sampling. In addition, this report provides the analytical results of the supplemental assessment of potential PCBs

in dust. As outlined by the USEPA email dated 22 November 2013, this report provides a comprehensive review of actions taken and analytical results to support the USEPA determination of project completeness.

1.2 *REPORT ORGANIZATION*

This report is organized as follows:

- Section 1 provides a site introduction and the purpose of the report;
- Section 2 describes the remedial action activities including field preparation, IW line and drain cleaning, percent completion, former utility port cleaning, and waste management;
- Section 3 presents the results of the post-remediation confirmation sampling;
- Section 4 presents the results of the supplemental sampling of dust;
- Section 5 presents a summary and conclusions; and
- Section 6 presents references used in preparation of this report.

2.0 *REMEDIAL ACTION ACTIVITIES*

In accordance with the USEPA-approved Workplan, high-pressure jetting of the IW lines and drains was conducted at Buildings 10 and 15. In addition, the former utility ports in Building 10 were also cleaned. This section discusses implementation of the remedial activities.

2.1 *SITE PREPARATION AND SETUP*

2.1.1 *Industrial Waste System Mapping*

Prior to conducting remedial activities, an extensive mapping effort was conducted to verify the features and routing of the IW system. Based on review of plumbing maps, field verification of the IW system surface features, and televising of sections of IW lines, the base maps for Buildings 10 and 15 were updated (Figures 2 through 5).

2.1.2 *Field Schedule and Communications*

IW cleaning areas occurred within active areas of the facility. Cleaning of the IW lines was conducted during the afternoon and evening hours to minimize disruptions to facility operations. The proposed cleaning locations were marked with paint prior to performing any activities. United was notified of the proposed cleaning activities and project updates continued throughout the remediation project.

2.1.3 *Equipment Staging and Storage*

Cleaning of the IW was a significant effort requiring specialized industrial cleaning equipment and sizeable waste management containers. Major pieces of cleaning equipment stored onsite included the hydroblaster, vacuum truck and pressure washer. Frac tanks for containerizing up to 16,000 gallons of liquid waste were also placed onsite within temporary spill containment berms. Minor equipment and materials included hoses and fittings, hand tools, spill response supplies, personal protective equipment (PPE), and safety-related equipment. Exclusion zones demarked with caution tape were maintained around these equipment and supplies. During cleaning activities, trucks and equipment were placed as close as possible to the work being performed, while maintaining clear access for normal and emergency facility traffic.

2.1.4 *Work Zone Exclusion Areas*

Prior to remedial activities each day, exclusion areas were established around all equipment with moving parts, high pressure hoses, manholes, and decontamination zones. Drains and cleanouts that were opened were covered with traffic cones and bollards to prevent tripping hazards. Active work areas were cordoned off with caution tape. No unauthorized access to the exclusion zones was permitted.

2.1.5 *Waste Handling*

Wash water generated during the cleaning activities was captured and not allowed to discharge to the downstream IW system. Wash water generated in Building 10 was captured in a manhole located immediately south of the building (Figure 2). The outlet pipe inside the manhole was sealed with an inflatable pipeline plug and the accumulated water and debris removed using a vacuum truck. Wash water generated in Building 15 was contained within two subgrade lift stations and removed via vacuum truck (Figure 4). The automatic transfer pumps in the lift stations were manually turned off prior to active cleaning activities each day. The lift stations were reactivated at the end of each cleaning shift to allow uninterrupted use by facility personnel during the day.

As noted above, all wash water was removed from the collection points using a mobile vacuum tank truck, and all liquid waste was pumped into the 16,000-gallon, double-walled steel frac tanks staged outside the buildings. Three tanks were completely filled during the project and a fourth tank was partially filled at completion.

Solid debris generated during the course of the cleaning activities generally consisted of sediment and debris removed from the floor drain traps and Building 10 former utility ports, and PPE. In total, eight drums of solid waste were generated.

Waste handling, profiling, and disposal details for both liquids and solids are provided in Section 2.5.

2.2 *REMEDIAL ACTION IN BUILDING 10 – IW LINES AND DRAINS*

Remedial actions in Building 10 were completed from 23 May through 5 June 2013. Descriptions of the IW line and drain cleaning are presented in the section below. The Building 10 cleaning process was implemented as follows:

- Manual solids removal from floor drain traps;

- High pressure jetting of the two main trunk lines (Line 1 and Line 2);
- Pressure-washing of the lateral lines;
- Final flushing of the main trunk lines (Lines 1 and 2); and
- Cleaning of the drain grate covers.

A summary of the cleaning and percent completion is provided in Section 2.2.6 and Table 2-1.

2.2.1 *Solids Removal from Floor Drain Traps*

All drain grate covers were removed, including those that had become sealed in place. Solids in the baskets and drain ports were dislodged with hand tools and wire brushes, and then removed with a portable shop vacuum. Solids that had bypassed the strainer baskets and entered the pipe below were also removed with hand tools and the shop vacuum to the extent possible. The shop vacuum was situated atop a 55-gallon drum for collection of waste and temporary storage.

All 18 drains were cleared of debris and solids. This included six drains on Line 1 and 12 drains on Line 2. One of the drains on Line 2 (L2D3) was partially inaccessible due to the permanent plumbing of process equipment. Cleaning was performed around the plumbing to the extent possible. No grate cover was present at this location.

2.2.2 *IW Line Cleaning*

Line cleaning was performed using a 12,000-pound-per-square-inch (psi) hydroblaster, jetting lance (nozzle), and heated water. High-pressure jetting commenced at the most downstream location at the manhole access point, where the lance was threaded into the main line by the operator. Using a foot pedal control valve and by manually pulling/pushing the hose, the lance repeatedly cleaned pipe sections. This back and forth motion of the jetting lance cleared the flow path and carried wash water back to the manhole. At the manhole, wash water was continuously removed by the vacuum truck.

The jetting process repeated until the following two conditions were visually observed: (1) the lance reached the most upstream cleanout and (2) the wash water became clear. Samples for inspection were obtained at the manhole. Line 2 cleaning operations commenced after completing cleaning of Line 1 and using the same methodology. Post-remediation confirmation sampling methods and results are described in Section 3.0.

2.2.3

Lateral and Drain Grate Cleaning

Lateral pipes connecting the drains to the main lines were cleaned using a 3,000-psi pressure washer. The diesel-powered pressure washer was positioned outdoors and connected by extension hoses to the drains, which served as access points to the lateral pipes. The pressure washer utilized hot water as the cleaning fluid. Wash water was captured downstream at the manhole by the vacuum truck. For lateral sections with obstructions, a mechanical plumbing snake with a rotary cutting tool was inserted into the drain to dislodge solids. After cleaning the lateral pipes, additional cleaning of the main lines was performed to flush all residues to the downstream collection point.

Impediments to cleaning were encountered at three lateral pipes. Two of the drains on Line 2 (L2D5 and L2D8) consisted of pipe inlets (bottom of drain) that were filled with cement. It was not possible to pressure-wash the laterals by accessing the drain. A pipeline camera was used to verify that the lance reached the lateral L2D5 from the opposite (downstream) direction and that cleaning was complete. The lateral at L2D8 was not accessible. Also, the lateral at L2D4 was severely obstructed and cleaning was only partially completed.

The drain grates and strainer baskets were removed and scrubbed with a wire brush and CLR Brand calcium-lime-rust remover. Drain covers and strainer baskets were then rinsed with clean water before reinstallation.

2.2.4

Remote Video Inspection

A pipeline camera was inserted into cleanouts at the line terminus, manhole, and drains to determine IW system layout where uncertainty existed and inspect sections of pipelines for cleaning effectiveness. Video output was observed on a televised screen at the camera controls.

The camera was used in several lateral pipes where obstructions were encountered. Based on this visual inspection, the obstruction and extent of cleaning was verified. As described above, the lateral at L2D5 was sealed with cement, but the use of the camera verified the lance had advanced into the lateral from the downstream direction and cleaning was complete.

The pipeline camera was also used to determine the pipeline configuration in the Building 10 Paint Shop. After the drain grates in the Paint Shop were removed and vacuum cleaning was conducted on 14 drains in the Paint Shop, observations made while using the camera indicated that the Paint Shop was not connected to the rest of the IW drainage system in Building 10. These drains are actually connected to the adjacent Building 11. USEPA was notified by email and conference call on 7 June 2013 of the plumbing layout. IW line cleaning of

Building 11 was not part of the USEPA-approved scope of work, as confirmed by conference call between USEPA, United, and ERM on 7 June 2013. USEPA concurred that no jetting of the Building 11 IW system (Paint Shop) was required.

2.2.5 *Manhole Cleaning*

Upon completion of IW line and drain cleaning activities in Building 10, the interior surfaces of the manhole were cleaned with a pressure washer. The wash water and remaining solids were removed by the vacuum truck. The outlet pipe was kept plugged until all material had been removed from the vault. Proper confined space entry procedures were followed and documented as personnel entered the manhole vault for cleaning.

2.2.6 *Obstructions and Percentage of Completion*

Extensive efforts were made to access all 18 drains within Building 10. Air-powered tools were used to open the drains that had been sealed by debris or corrosion. The drain port L2D1 was partially covered by an interior partition wall, and a portion of the wall was cut away to allow access. Pipelines clogged with solid debris required the repeated use of a plumbing snake with a rotary cutting tool to adequately open the line for subsequent cleaning.

Table 2-1 presents the percentage of completion for each stage of the IW system cleaning in Building 10.

Table 2-1 *Building 10 IW Cleaning – Percentage of Completion*

Cleaning Operation and System Component	Total Amount	Amount Cleaned	Percent Complete
Solids Removal at Drains	18	18	100%
Jetting Main Lines (L1 & L2)	620 feet	620 feet	100%
Pressure Washing Lateral Pipelines ¹	264 feet	214 feet	81%
Cleaning Drain Grates and Baskets ²	17	17	100%
Cleaning Manhole Vault	1	1	100%
Overall Completion Rate ³			94%

1. Laterals inaccessible due to blockage at L2D4 and a cement-filled inlet at L2D8.

2. Drain grate not present at L2D3 due to permanent plumbing and process equipment.

3. Total linear feet of the IW lines and laterals expressed as a percent complete.

2.3

REMEDIAL ACTION IN BUILDING 10 – UTILITY PORTS

The proposed scope of the cleaning was modified in a USEPA letter to United, dated 17 April 2013, to include the former utility ports. Three clusters of six utility ports are located in the floor in the original hangar portion of Building 10. The utility ports are approximately 6 inches in diameter and 4 inches deep, and formerly served to house water, electrical, and air utility connections for aircraft maintenance operations. These utilities are not in use. In fact, since 1967, there have been no aircraft maintenance operations in Building 10. The building operations consist of tire shop, wheel assembly, and a parts laydown area for temporary storage.

High pressure washing is not feasible for a small closed-system such as the utility ports. The cover and interior of each utility port were scrubbed with a wire brush. Solids were removed by a shop vacuum. The process was repeated twice to remove as much sediment and debris as possible from each port. As noted in Section 2.1.5 above, all of the removed sediment and debris was placed in drums for profiling and disposal.

2.4

REMEDIAL ACTION IN BUILDING 15 – IW LINES AND DRAINS

Remedial operations in Building 15 commenced on 6 June 2013 and continued through 24 June 2013. Descriptions of the cleaning activities in Building 15 are presented below. The cleaning process was implemented as follows:

- Manual solids removal from floor drains, traps, and check valves;
- High pressure jetting of the two separate networks of IW lines (Lines L1-L3 and L4-L10);
- Jetting of the lateral lines;
- Final flushing of the IW lines (Lines L1-L3 and L4-L10); and
- Cleaning of the drain grate covers and traps.

2.4.1

Solids Removal from Floor Drains

Due to the large footprint of Building 15 and use of a portion of the building for warehouse storage, extensive efforts were made to access the drainage system. Floor drains were found under desks in office spaces, stored materials, shelving, pallets, stairways, and partition walls. Thirty of the 36 drains were accessible. All 30 accessible drains in Building 15 were opened, including those sealed in place by debris and corrosion. Solids in the strainer baskets and drains were dislodged with hand tools and wire brushes, and then removed with a portable shop vacuum.

Of note, each floor drain in Building 15 is equipped with a check valve to prevent water from backing up to the floor surface during heavy rain events. The check valve was located adjacent to the drain in a separate opening in the floor. As part of the comprehensive cleaning activities, sediment and debris found in the check valves were also manually dislodged and removed with a portable shop vacuum.

Similar to Building 10, solids removed from the floor drains were placed in drums for profiling and disposal.

2.4.2 *IW Line Cleaning*

The IW system in Building 15 consisted of two separate networks, including a pump lift station (sump) at the downstream terminus of each network (Figure 4):

- Lines L1-L3 drained to Sump No. 1; and
- Lines L4-L10 drained to Sump No. 2.

The sumps consisted of sufficient volume to allow continuous cleaning operations. The sump was emptied periodically by vacuum truck to control the water level in the sump, and also at the end of each evening to prepare the sump for the following work shift. As noted in Section 2.1.5 above, the automatic transfer pumps in the lift stations were manually turned off prior to active cleaning activities each day. The lift stations were reactivated at the end of each cleaning shift to allow uninterrupted use by facility personnel during the day.

Based on the length of pipelines, bends, and access points, the cleaning of the Building 15 IW system was conducted in an upstream to downstream direction. For the IW network that drains to Sump No. 2, seven pipelines (L4-L10) converged before entering the sump. The common line (L7) was cleaned several times to the extent possible to clear the solids that accumulated at the entrance to the sump.

2.4.3 *Lateral and Floor Drain Grate Cleaning*

Laterals in Building 15 were generally 5 feet or less in length. Due to the configuration of the check valves described in Section 2.4.1, the hydroblaster lance was first inserted into the drain to flush material to the check valve port. Solids were removed at the check valve, and then the lance and hose were inserted into the check valve for cleaning of the laterals. A final cleaning of the main IW lines was performed after cleaning the laterals to effectively flush the system.

Drain grates and strainers were subsequently removed, scrubbed, and rinsed as described in Section 2.2.3 prior to being reinserted.

2.4.4 *Remote Video Inspection*

A pipeline camera was inserted into cleanouts at the line terminus and drains to determine IW system layout where uncertainty existed, and to inspect sections of pipelines for cleaning effectiveness. Video output was observed on a televised screen at the camera controls. Water-soluble dye approved for sewer pipeline investigations was also used in conjunction with the camera for system mapping.

2.4.5 *Pump Lift Cleaning*

Upon completion of IW line and drain cleaning activities in Building 15, the interior surfaces of the sump were cleaned with a pressure washer. The wash water and remaining solids were removed using the vacuum truck. The automated effluent pumps were manually switched off until all material had been extracted from the vault to prevent downstream movement of contaminants.

2.4.6 *Obstructions and Percentage of Completion*

For lateral sections with obstructions, a mechanical plumbing snake with a rotary cutting tool was inserted into the floor drain and/or check valve to dislodge solids. The plumbing snake was used to prepare the lateral for jetting as described above. Obstructions observed in the lines included fabric rags, cords, debris, and shredded plastic sheeting.

A section of L3, between cleanouts C5 and C6 (Figure 4) was heavily impacted with solid debris. Although the lance was unable to penetrate this section, wash water was flowing and significant cleaning was achieved.

As noted above, seven pipelines (L4-L10) converged before entering Sump 2. Repeated jetting was conducted along this line of convergence (L7) to achieve the most comprehensive cleaning possible. No cleanouts were located along this line to gain complete access.

The 10 main IW lines were cleaned along 1,940 of the 2,010 linear feet present in Building 15. Table 2-2 presents the percentage of completion for the IW system in Building 15.

Table 2-2 Building 15 IW Cleaning – Percentage of Completion

Cleaning Operation and System Component	Total Amount	Amount Cleaned	Percent Complete
Manual Solids Removal at Drains and Check Valves	72	66	92%
Jetting Main Lines (L1-L10)	2,010 feet	1,940 feet	96%
Pressure Washing Lateral Pipelines	345 feet	345 feet	100%
Cleaning Floor Drain Grates and Baskets	36	30	83%
Cleaning Sumps	2	2	100%
Overall Completion Rate¹			97%

1. Total linear feet of the IW lines and laterals expressed as a percent complete.

2.5 WASTE MANAGEMENT

The collected wash water and liquid materials recovered from the IW line system cleaning activities were transferred to 16,000-gallon frac tanks for temporary storage and waste profiling. The solids recovered from the floor drains, cleanouts, and sumps were placed in 55-gallon drums, temporarily stored and sampled for waste profiling. In addition, disposable equipment and other solid waste generated during the confirmation sampling and investigative activities, such as disposable protective clothing, boot covers, gloves and Tyvek coveralls, were containerized and treated as PCB-impacted waste for off-site disposal.

The waste materials consisted of approximately 60,000 gallons of wash water in four frac tanks and 1,000 pounds of solids/sludge in eight 55-gallon drums. Based on waste characterization and sampling, the bulk liquid waste material from three frac tanks was transported to Clean Harbors Grassy Mountain, LLC in Grassy Mountain, Utah for landfilling. The bulk liquid waste material from the fourth frac tank was transported to Clean Harbors San Jose, LLC, in San Jose, California prior to being shipped and disposed by incineration at Clean Harbors Aragonite, LLC in Aragonite, Utah. The contents of the fourth frac tank included the sludges from the two sumps in Building 15, which were also disposed by incineration in Aragonite. All other solid waste was transported in 55-gallon drums from SFMC by Clean Harbors to its facility in San Jose, and subsequently sent to Clean Harbors Buttonwillow, LLC in Buttonwillow, California for landfilling. Waste manifests are provided in Appendix A. Laboratory analytical reports and a summary of analytical data used for waste characterization are provided in Appendix B and Table B-1, respectively.

Upon completion of remedial activities, confirmation samples were collected to verify that any potential residual PCBs in the IW system were reduced below the RBSLs, or established remedial action objectives (RAOs). As discussed, the RBSLs were developed using very conservative risk assumptions and were determined by United to be sufficient for use as a basis for establishing RAOs for this initial phase of the SFMC PCB assessment and remediation process. United will continue to evaluate the appropriateness and applicability of the RBSLs in subsequent phases of this project at SFMC. The following were collected and analyzed:

- Rinsate samples (liquid samples after final rinsing of IW lines) to confirm remediation of the IW lines and drains;
- Wipe samples of drain grate surfaces to confirm remediation of drain grates; and
- Wipe samples of the interior of former utility ports to confirm remediation of the ports.

Liquid and wipe sample collection was conducted in accordance with the procedures described in the USEPA-approved Workplan. As described in Section 2.3, the former utility ports were added to the scope of work by USEPA as a condition of approval on 17 April 2013. Confirmation sampling procedures used for utility port wipes were consistent with the methodology used for the drain grate wipes.

Samples were submitted to Calscience Environmental Laboratories, Inc., of Garden Grove, California (Calscience) for PCB analysis by USEPA Method 8082. Soxhlet extraction by USEPA Method 3540 was used on the wipe samples. All collected samples were properly labeled, stored in water-tight baggies, and placed in chilled coolers for transport under proper chain-of-custody to the analytical laboratory.

The following comparisons were conducted to confirm that RAOs were met:

1. Concentrations of PCBs in rinsate (units of micrograms per liter [$\mu\text{g}/\text{L}$]) were compared to the established SFMC RBSLs for liquids; and
2. Concentrations of drain grate wipe samples and former utility port wipe samples (units of $\mu\text{g}/100$ square centimeters [cm^2]) were compared to the established SFMC RBSLs for drain grate wipes.

The following sections present the results of the confirmation sampling and the risk screening evaluation. A summary of the confirmation sample results is provided in Tables 1 and 2. Laboratory results are included in Appendix C. The

2013 sample results that indicate detections above RBSLs are presented on Figures 2 and 4 for Buildings 10 and 15, respectively. The comprehensive PCB sample results including historical detections are presented on Figures 3 and 5 for Buildings 10 and 15, respectively.

3.1 BUILDING 10 RESULTS

3.1.1 Rinsate Confirmation Sample Results

Rinsate samples were collected after adding 250 gallons of potable water at the upstream terminus of each of the IW lines (L1 and L2). Field personnel conducted confined space entry activities to enter the downstream manhole and collect rinsate samples. Samples were collected under direct flow at the manhole inlet pipe using the laboratory supplied, 1-liter amber glass sample jars. A total of three rinsate samples were collected including L1 rinsate, L1 duplicate, and L2 rinsate. PCBs were not detected in any of the three rinsate samples.

3.1.2 Drain Grate Confirmation Sample Results

Wipe samples were collected at each of the 17 drain grates to confirm that remediation was complete (Figure 2). Sampling was performed in accordance with the procedures described in the Workplan, and consistent with USEPA's 18 April 1991 *Wipe Sampling and Double Wash/Rinse Cleanup* guidance. A standard-size template of 10 x 10 cm could not be used due the void space and irregular area of the grate surface. The wiped surface was measured and recorded to normalize the results to 100 cm². Low levels of PCBs were detected at two locations at normalized concentrations of 0.3 and 0.7 µg/100 cm² (both Aroclor 1262). One additional location was recleaned after the confirmation sample indicated residual concentrations of PCBs. Upon completion of the second cleaning effort, the wipe sample result at this location (L2-DG9) indicated PCBs (Aroclor 1262) at a normalized concentration of 3.6 µg/100 cm² (Figure 3). None of the 17 sample results exceeded the RBSL of 3.7 µg/100 cm².

3.1.3 Utility Port Confirmation Sample Results

Insufficient material remained in utility ports following debris removal efforts. Hence, wipe samples were collected at each of the 18 former utility ports to confirm that remediation was complete (Figure 2). Sampling was performed in accordance with the wipe procedures described in the Workplan, and consistent with USEPA's 18 April 1991 *Wipe Sampling and Double Wash/Rinse Cleanup* guidance. A standard-size template of 10 x 10 cm could not be used due the irregular area and presence of stubbed utility lines. The wiped area inside the port was measured and recorded to normalize the results to 100 cm². PCBs were

detected at normalized concentrations ranging from 4.4 to 35 $\mu\text{g}/100\text{ cm}^2$. The established RBSL is 3.7 $\mu\text{g}/100\text{ cm}^2$ for wipe samples.

United also collected samples of the accumulated sediments found inside the former utility ports prior to remediating these ports. A grab sample from each port was collected using a 4-ounce glass vial. Sediment sample results are provided in Table 1 and presented as Figure 3. The analytical results indicate the presence of PCBs in the accumulated sediments found in the utility ports. However, as described, remedial activities were conducted on all 18 utility ports and confirmation samples were collected to support risk-based decision-making (see below, Section 3.2).

3.2 ***BUILDING 10 CONFIRMATION RESULTS - RISK SCREENING***

As discussed earlier, RBSLs specific to the SFMC were calculated for rinsate and drain grates. The RBSLs for rinsate are 3.3 $\mu\text{g}/\text{L}$, 269 $\mu\text{g}/\text{L}$, and 14 $\mu\text{g}/\text{L}$ for the San Francisco Bay recreator, aquatic biota, and sediment dwelling biota, respectively. As mentioned, the RBSLs for rinsate are based on water quality criteria, which are represented in units of $\mu\text{g}/\text{L}$ for Total PCB concentrations (USEPA, 2000). Therefore, the RBSL of 3.3 $\mu\text{g}/\text{L}$ (Total PCBs) is used to determine sufficient cleanup in support of closure of IW lines, based on the most conservative health-protective RBSL that was calculated for rinsate.

As presented in Appendix D, the RBSL evaluation for drain grate wipe samples includes nine Aroclors of PCBs to be consistent with the proposed laboratory analytical program. These include Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268. For each Aroclor, an RBSL was calculated for the facility maintenance worker and the aircraft maintenance worker. The analytical results of the drain grate confirmation samples are compared to each of the specific Aroclor RBSLs. A summary of RBSLs is shown on Table 3-1 below. RBSLs for all Aroclors are provided in the Appendix D. Given the facility operations and potential receptors, the RBSL for the drain grate was used for the utility port for comparison purposes.

Table 3-1 Risk-Based Screening Levels (RBSLs) – Drain Grate Samples

Receptor of Concern	RBSL ¹		
	Rinsate ² (µg/L)	Grate Wipe (µg/100 cm ²)	
	Total PCBs	A1254	A1016
Facility Maintenance Worker*	—	4.8	137
Aircraft Maintenance Worker**	—	3.7	105
Hypothetical Construction Worker***	—		—
Recreator	3.3		—
Aquatic Biota	269		—
Sediment-Dwelling Biota	14		—

See Appendix D for RBSLs for all Aroclors

Notes:

A1254 = Using toxicity for Aroclor 1254

A1016 = Using toxicity for Aroclor 1016

— = Not applicable

¹ derived using incremental lifetime cancer risk (ILCR) = 10⁻⁶

² derived using California Toxics Rule numeric water quality criteria (USEPA 2000)

Confirmation sampling of the IW system and drain grates indicates that remediation of the IW system in Building 10 is complete. The two rinsate samples were non-detect for PCBs and all grate sample results were below RBSLs. No further effort to clean the IW system or drain grates in Building 10 is necessary. This Completion Report serves as a request to USEPA to approve a no further action designation.

PCBs were detected in each of the subsurface utility ports at concentrations above RBSLs. For perspective, at a majority of these locations (10 samples) PCBs were detected at levels below 10 µg/100 cm², the non-porous surface cleanup standard (40 CFR § 761.61[a][4][ii] Cleanup Levels). Despite limitations in differentiating sources using Aroclor composition, there was no statistical difference in Aroclor composition across the utility types. For all utility types including air, electrical, steam, vacuum, and water, the ports contained similar PCB-containing debris—i.e., no obvious distinguishing attributes. A statistical comparison of Aroclors among utility ports is provided below (Table 3-2).

Table 3-2. Summary of Statistical Comparisons of Aroclors among Utility Port Types

Aroclor	Air	Electrical	Steam	Vacuum	Water
A1232	NS (p = 0.26)				
A1248	NS (p = 0.48)				
A1254	NS (p = 0.40)				
A1260	NS (p = 0.25)				

Aroclors 1016, 1221, 1242, 1262, and 1268 were not detected in any sample

NS = not statistically significant at $\alpha = 0.05$

The former utility ports are not in use and largely inaccessible. These ports have not been used in over 40 years. In-place closure of the former utility ports is recommended. A separate letter request will be prepared for USEPA to describe the proposed closure activities including cement-sealing and resurfacing.

3.3 BUILDING 15 SAMPLING

3.3.1 Rinsate Confirmation Sample Results

IW lines L1-L10 were rinsed and sampled after adding 250 gallons of potable water at the upstream terminus of each of the IW lines. Samples for L1-L3 were collected at Sump No. 1, and samples for L4-L10 were collected at Sump No. 2. A telescoping (extension) pole sampler was advanced into the sumps to obtain water samples using the laboratory supplied, 1-liter amber glass sample jars.

Rinsate collected from three of the 10 IW line sections indicated the presence of PCBs. A summary of analytical results is provided in Table 2. Aroclor 1254 and 1260 were detected in rinsate sample B15-L4 (Line 4) at a concentration of 10.4 $\mu\text{g/L}$ (Total PCBs). Aroclor 1254 was detected in rinsate samples B15-L7 and B15-L9 (Lines 7 and 9) at concentrations of 6.5 and 4.5 $\mu\text{g/L}$, respectively (Figure 4). The RBSL for rinsate is 3.3 $\mu\text{g/L}$.

3.3.2 Drain Grate Confirmation Sample Results

Wipe samples were collected at each of the 30 drain grates to confirm that remediation was complete (Figure 4). Sampling was performed in accordance with the procedures described in the Workplan, and consistent with USEPA's 18 April 1991 *Wipe Sampling and Double Wash/Rinse Cleanup* guidance. A standard-size template of 10 x 10 cm could not be obtained due the void space and irregular area of the grate surface. The actual sample area was measured and

recorded to normalize the results to 100 cm². Of the 30 wipe samples collected, PCBs were detected at only one location (B15-L6-D2) at a normalized concentration of 1.2 and 1.5 µg/100 cm² for Aroclor 1254 and Total PCBs, respectively (See Table 2 and Figure 5). None of the 30 sample results exceeded the RBSL of 3.7 µg/100 cm².

3.4

BUILDING 15 CONFIRMATION RESULTS – RISK SCREENING

As discussed, the RAO is based on the most conservative, health-protective RBSL of 3.3 µg/L and 3.7 µg/L for rinsate and drain grates, respectively (see Table 3-1). Confirmation sampling of the IW system and drain grates indicates that remediation of the IW system in Building 15 was comprehensive and adequate. Although PCBs were present in three of the rinsate samples above the RBSL, the detections were of the same magnitude as the RBSL. In addition, all 30 grate sample results were below the RBSL and 29 were non-detect for PCBs. It is important to note that the SFMC industrial wastewater is treated onsite at the Metals Removal Plant (MRP) and downstream at SFO's Wastewater Treatment Plant (WWTP). In 2013, seven samples of MRP influent were collected between May and August. Samples were analyzed for PCBs by USEPA Method 8082. Results were non-detect for PCBs for all seven MRP influent water samples.

PCBs are recognized as being largely insoluble in water and are transported in the environment via sorption to sediment. In the unlikely event that any residual PCBs may be present in the MRP influent subsequent to remediation, the dissolved air flotation, settling, and multi-filtration processes facilitate the removal of sediment. In the unlikely case that PCBs are not sufficiently captured in the MRP, PCBs would be treated (captured) again at the SFO WWTP. This redundancy helps ensure that United complies with SFO's Waste Discharge Requirements under the Regional Water Quality Control Board Order R2-2007-0060 as amended by R2-2011-0012, and National Pollutant Discharge Elimination System Permit Number CA0028070.

Based on the results of the confirmation sampling, and the successive treatment processes at SFMC and SFO, no further effort to clean the IW system or drain grates is necessary. This Cleanup Completion Report serves as a request to USEPA to approve a no further action designation.

4.0 SUPPLEMENTAL DUST SAMPLING

Dust from Buildings 10 and 15 represents an accumulation over many years from materials that may contain PCBs. Dust samples were collected as a representative and useful surrogate from which inferences of exposures to workers from other potential PCB sources could be made.

4.1 BUILDING 10 DUST SAMPLE RESULTS

Dust sampling was performed in accordance with the procedures described in the Workplan. Locations were first sampled using micro-vacuum sampling procedures consistent with American Society for Testing and Materials (ASTM) Standard D7144-05a: *Standard Practice for Collection of Surface Dust by Micro-vacuum Sampling for Subsequent Metals Determination*. Following the micro-vacuum sample, a wipe sample was collected at each location. Both the micro-vacuum filter and wipe were extracted together to achieve a combined PCB concentration for the particular location. Samples were submitted to Calscience for Soxhlet extraction by USEPA Method 3540 and analysis for PCBs by USEPA Method 8082.

Of the 10 dust sample locations, PCBs were detected at three isolated locations:

- Aroclor 1254 was detected at B10-D5 (Paint Shop in the northeastern corner) at a concentration of 26 µg/100 cm²;
- Aroclor 1254 was detected at B10-D7 (Paint Shop in the northeastern corner) at a concentration of 16 µg/100 cm²; and
- Aroclor 1260 was detected at B10-D10 (adjacent to recycling storage bin in the southwestern corner) at a concentration of 2.2 µg/100 cm².

Tables 1 and 2 following the text include analytical results for the dust samples collected during this investigation.

4.2 BUILDING 10 SUPPLEMENTAL SAMPLE RESULTS - RISK SCREENING

Dust RBSLs are used as action levels to infer whether additional characterization of the building interior (including additional dust sampling) is required to support closure. Dust RBSLs consider the following receptors at the SFMC: aircraft maintenance workers, facility maintenance workers, and hypothetical construction workers. Dust RBSLs are compared to concentrations of PCBs in dust (surface) wipe samples, and used to determine if further investigation, risk

evaluation, and/or remediation of the potential risks posed by PCBs should be considered, as appropriate.

As directed by USEPA, the RBSLs for settled dust were developed using the equations presented in Appendix D of the *World Trade Center Indoor Environmental Assessment: Selecting Contaminants of Potential Concern and Setting Health-Based Benchmarks* (Committee of the World Trade Center [WTC] Indoor Air Task Force Working Group, 2003). Although the WTC assessment was based on residential exposure scenarios, the receptors to be considered at the SFMC are aircraft maintenance workers, facility maintenance workers, and hypothetical construction workers. As discussed in the Workplan, the pathways evaluated were incidental ingestion of dust and dermal contact. Inhalation was not quantified for settled dust, since it is limited in quantity and estimates of emission based upon a typical soil particulate emission factor would likely grossly overestimate the pathway's contribution to overall risk.

The RBSL evaluation for dust wipe samples includes nine Aroclors to be consistent with the proposed laboratory analytical program. These include Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268. The proposed RBSL was revised by the USEPA in an email dated 21 June 2013 to include a target cancer risk of 1×10^{-6} ; the resulting RBSL was below the laboratory detection limit. Therefore, the USEPA established the RBSL at the laboratory detection limit, or any estimated (J-qualified) detectable concentration.

Table 4-1 Risk-Based Screening Levels (RBSLs) – Dust Samples

	RBSL ¹	
	Interior Dust (µg/100 cm ²)	
Receptor of Concern	A1254	A1016
Facility Maintenance Worker	0.096 [Calculated RBSL is below the laboratory detection limit. Final RBSL is any detectable level.]	2.7
Aircraft Maintenance Worker	0.61	18
Hypothetical Construction Worker	3.3	11

See Appendix D for RBSLs for all Aroclors

Notes:

A1254 = Using toxicity for Aroclor 1254

A1016 = Using toxicity for Aroclor 1016

Other = Other Aroclors

— = Not applicable

1. Based on incremental lifetime cancer risk (ILCR) = 10^{-6}

At seven of the 10 dust sample locations, PCBs were not detected. At three locations, the dust sample results exceeded RBSLs with detectable PCBs. The presence of PCBs was localized in two areas of Building 10, in the Paint Shop and the far southwestern corner adjacent to the recycling storage bin.

Based on these results, further characterization in the Paint Shop and recycling storage bin areas is recommended to complete the risk evaluation. A separate Workplan for Phase II Dust Investigation will be prepared for USEPA to describe the proposed continued investigation of dust in these two areas of Building 10.

4.4

BUILDING 15 SUPPLEMENTAL SAMPLE RESULTS - RISK SCREENING

A total of 10 dust sample locations were used in the Building 15 investigation. No PCBs were detected across the Building 15 dust sample locations.

This Cleanup Completion Report documents the remedial actions and investigation conducted in accordance with the USEPA 17 April 2013 Conditional Approval Letter to United. Consistent with USEPA direction, Appendix E provides a list of responses and clarifications to the USEPA comments in the Conditional Approval Letter (each condition is referenced by italicized number).

IW LINES AND DRAINS

Remedial action of the IW system including the main IW lines, drains, laterals, and grates was conducted between 21 May and 24 June 2013. Photo documentation is provided in the Appendix F. A summary of the remediation is provided below.

Building 10

- Achieved an overall completion rate of 94% for the total length of lines and laterals cleaned; and
- Post-confirmation samples indicate that PCBs were reported as non-detect in the rinsate and not detected in the drain grate wipes above RBSLs.

Building 15

- Achieved an overall completion rate of 97% for the total length of lines and laterals cleaned.
- Post-confirmation samples indicate three RBSL exceedances in the rinsate. PCBs were reported as non-detect with the exception of one drain grate wipe, which was below the RBSL.

Although PCBs are present in rinsate in Building 15 above the RBSL, these exceedances are bounded by non-detect PCB results for seven influent samples collected at the MRP during 2013. The wastewater at the SFMC is treated at the MRP, the downstream SFO WWTP, and finally, at the regional North Bayside System Unit (NBSU) South San Francisco/San Bruno Water Quality Control Plant. The calculated RBSL for rinsate does not account for treatment processes;

only a conservative dilution factor¹ was applied to calculate health-protective RBSLs. The data suggest that the presence of potential residual PCBs, albeit at low concentrations, is limited to the inaccessible subsurface lines and drains. PCBs have not been found at the downgradient MRP. No further effort to investigate or remediate the IW system at Buildings 10 and 15 is necessary.

5.2 **UTILITY PORTS IN BUILDING 10**

RBSL exceedances are present in these floor-level ports based on confirmation sample results. The utility ports are restricted with lids, inaccessible, and not in use. The data support in-place closure and sealing of the former utility ports.

5.3 **DUST**

Building 10

A total of 10 dust samples were collected in each building. The results include localized sample results in isolated areas in Building 10 above the screening levels. Additional dust sampling is warranted in these two localized areas of interest in Building 10.

Building 15

Of the 10 dust samples collected from Building 15, there were no PCBs detected. No additional dust sampling / assessment work is necessary in Building 15.

5.4 **PROPOSED ACTION**

The remedial activities and supplemental sampling conducted at Buildings 10 and 15 at the SFMC support the following proposed actions (Table 5-1).

¹ The NBSU throughput flows were conservatively estimated as being equal to the SFO WWTP throughput flows.

Table 5-1. Summary & Proposed Actions

	Bldg 10	Bldg 15
IW System	No Action - Cleanup Complete rinsate < RBSLs	No Action - Cleanup Complete 3 rinsate > RBSLs treatment at MRP and SFIA WWTP inaccessible
Utility Ports	In-place Sealing and Closure residual wipe > RBSL close and seal covers inaccessible	NA
Dust	Continued Investigation dust > RBSLs	No Action - Cleanup Complete dust < RBSLs

NA = not applicable

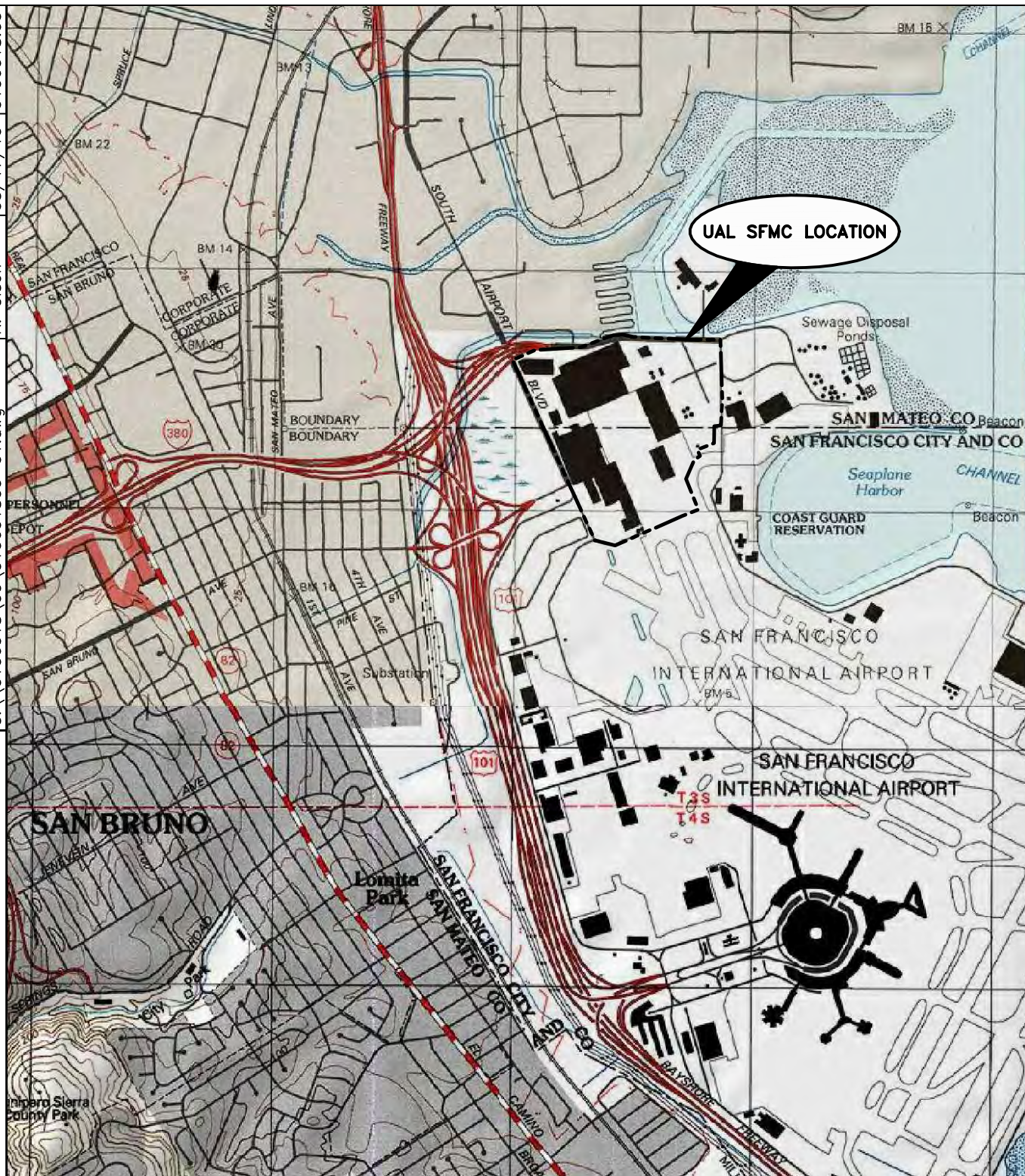
Based on the extensive remedial activities completed in Buildings 10 and 15 and the results of comprehensive confirmatory sampling, United is requesting with this report the following regulatory determinations from USEPA:

- Regulatory approval of the cleanup and closure of the Building 10 and 15 IW lines and drains;
- Regulatory approval of the cleanup and closure of the utility ports in Building 10. In support of this closure request, United will submit a supplementary letter summarizing additional closure activities for these utility ports, including the cement-sealing and resurfacing of these ports; and
- Approval of a Workplan for Phase II Dust Sample Collection to be submitted by United to address two localized areas of interest in Building 10.

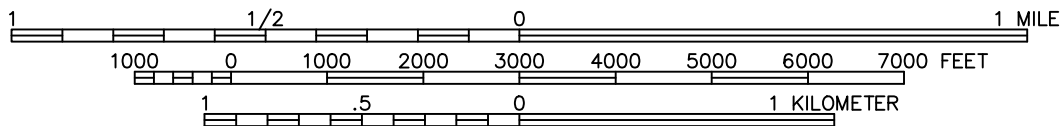
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- USEPA. 2001b. Risk Assessment Guidance for Superfund: Volume I Human Health Evaluation Manual—Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments.

Figures

Project No. 0106018.00
 Date: 05/17/10
 Drawn By: R. Olson
 CAD File: C:\0106018\00\010601800-01.dwg



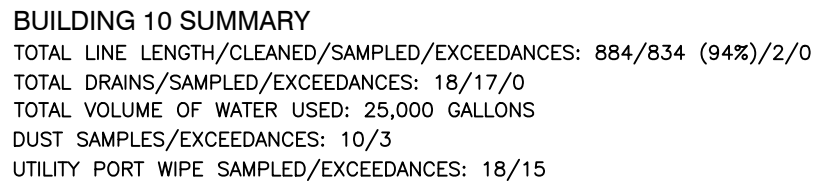
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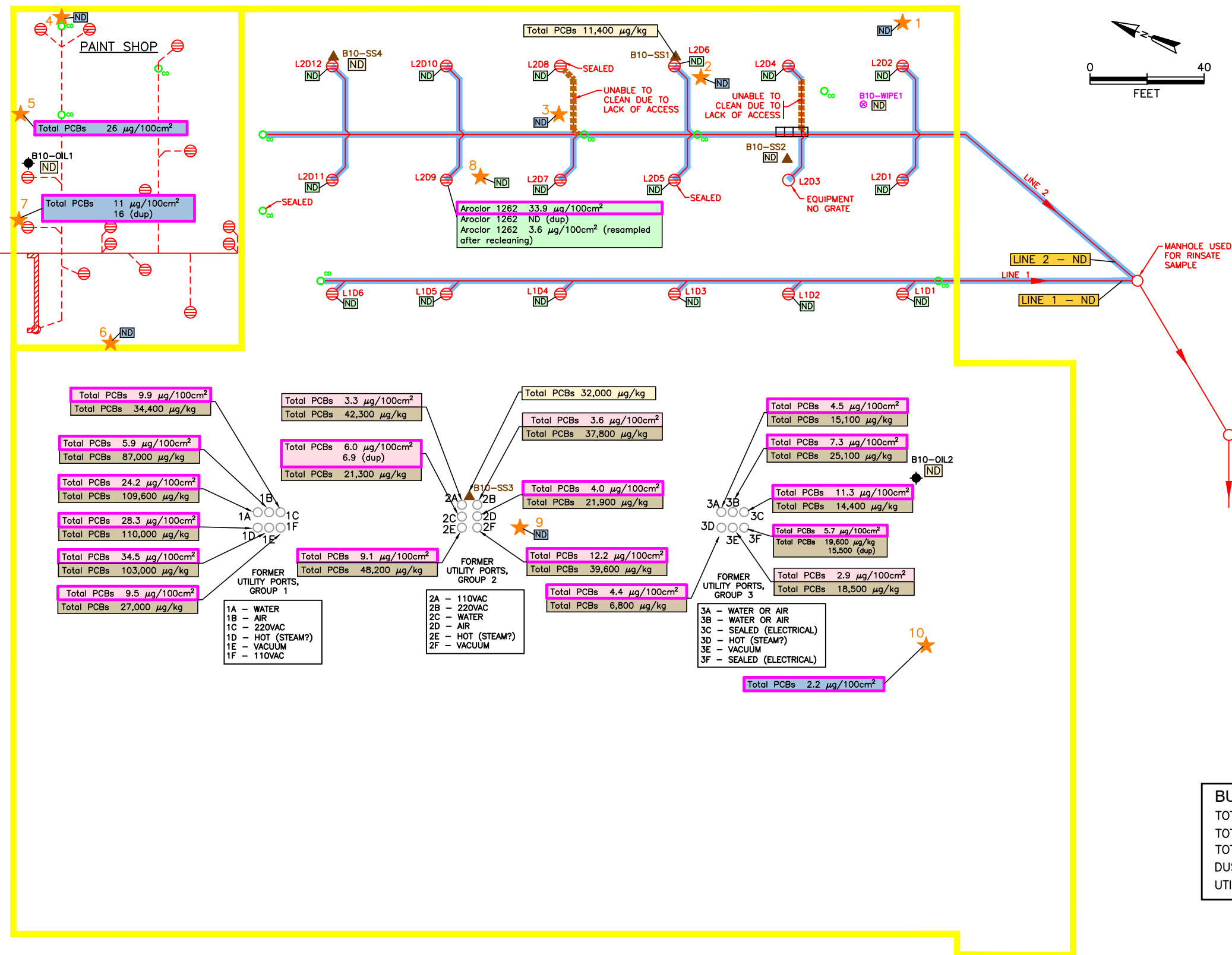
References:

U.S.G.S. 7.5 Minute Series (Topographic San Francisco
 South and Montara Mountain Quadrangle, California)
 Dated: 1956; Photorevised 1980
 Dated: 1993

Figure 1
 Site Location Map
 San Francisco Maintenance Center
 United Airlines

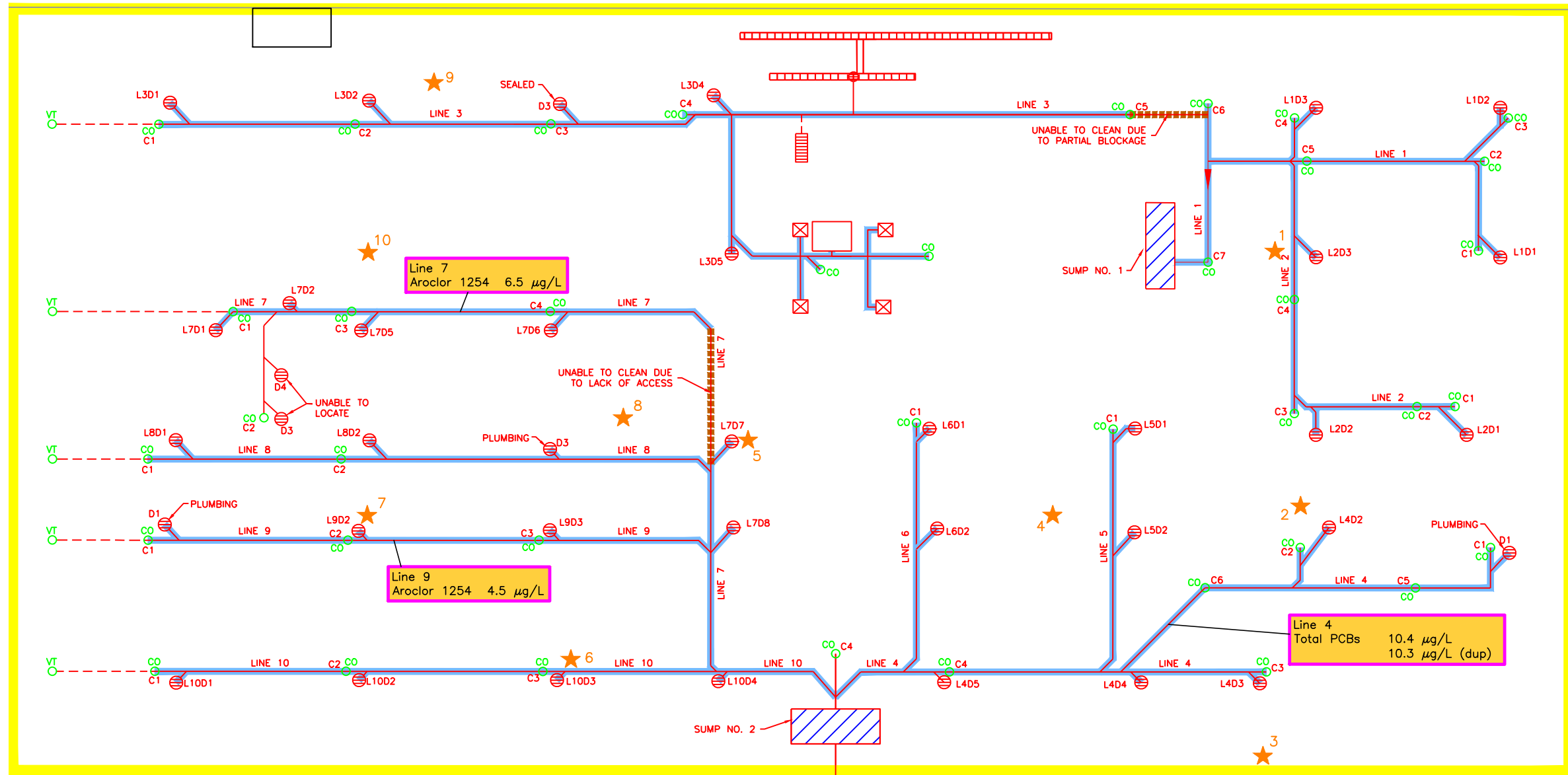


ERM 12/13



BUILDING 10 SUMMARY
TOTAL LINE LENGTH/CLEANED/SAMPLED/EXCEEDANCES: 884/834 (94%)/2/0
TOTAL DRAINS/SAMPLED/EXCEEDANCES: 18/17/0
TOTAL VOLUME OF WATER USED: 25,000 GALLONS
DUST SAMPLES/EXCEEDANCES: 10/3
UTILITY PORT WIPE SAMPLED/EXCEEDANCES: 18/15

Figure 3
Building 10 PCB Sample Results
Comprehensive
Maintenance Operations Center
San Francisco International Airport



BUILDING 15 SUMMARY	
TOTAL LINE LENGTH/CLEANED/SAMPLED/EXCEEDANCES:	2,355/2,285 (97%)/10/3
TOTAL DRAINS/SAMPLED/EXCEEDANCES:	36/30/0
TOTAL VOLUME OF WATER GENERATED:	50,000 GALLONS
DUST SAMPLES/EXCEEDANCES:	10/0

LEGEND

⊖ FLOOR DRAIN

★ 2013 DUST SAMPLE

L2D1 ⊖ 2013 FLOOR DRAIN GRATE WIPE SAMPLE

— INDUSTRIAL WASTE LINE

CO CLEAN OUT

VT VENT/VENT LINE

▤ TRENCH DRAIN

▬ BUILDING BOUNDARY

— CLEANING COMPLETED

▤ UNABLE TO CLEAN

2013 RINSE SAMPLE RESULT FROM DRAIN LINE

▤ SUMP USED FOR RINSATE SAMPLE COLLECTION

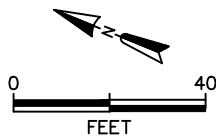
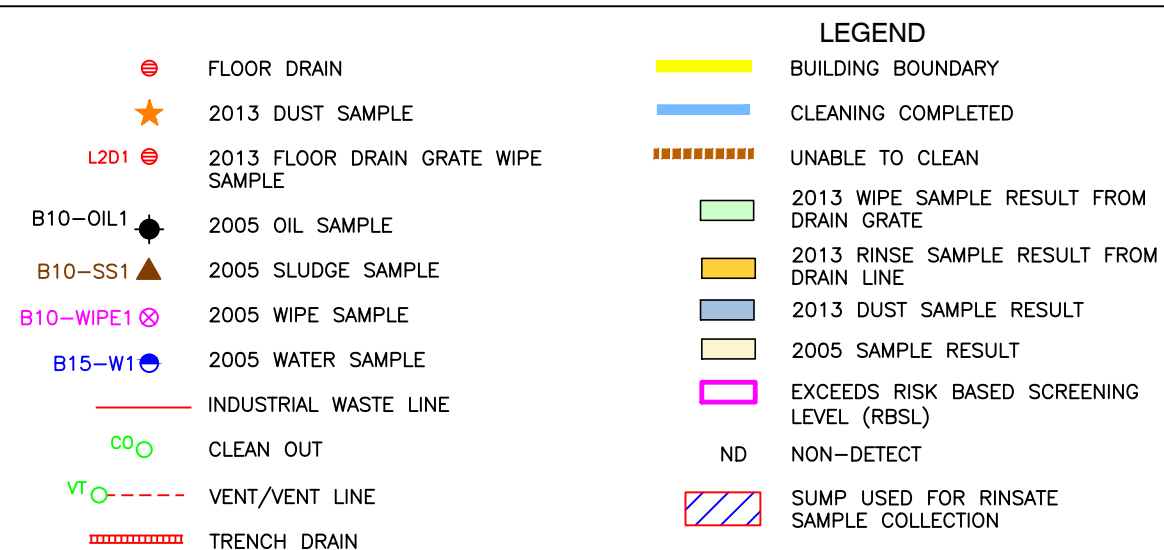
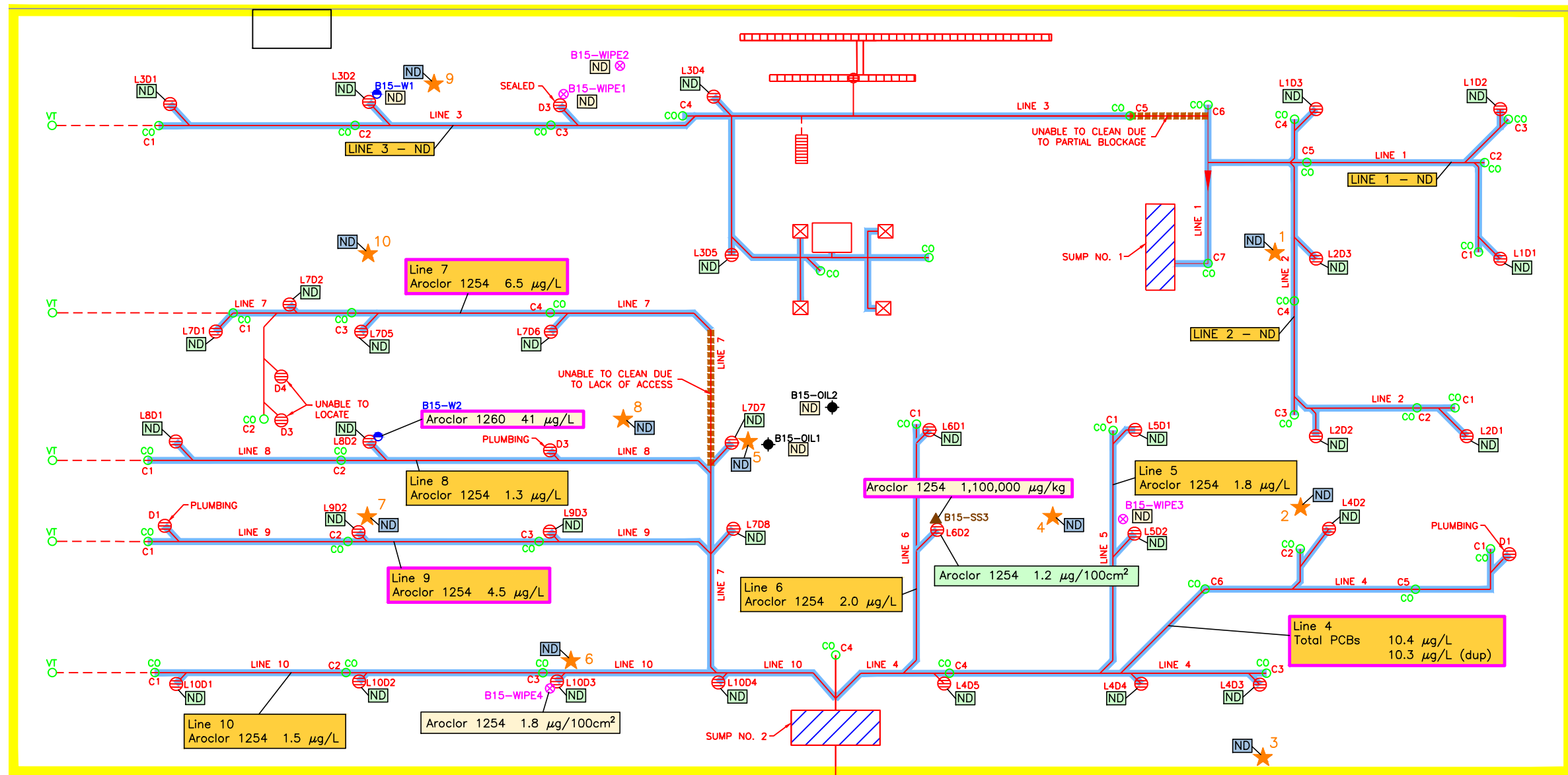


Figure 4
Building 15 Post Remediation
Samples Above Screening Levels
Maintenance Operations Center
San Francisco International Airport



NOTE:
All samples were analyzed for all 9 Aroclors.
Where detections are shown, note that other Aroclors were non-detect (ND) in that sample.

BUILDING 15 SUMMARY	
TOTAL LINE LENGTH/CLEANED/SAMPLED/EXCEEDANCES:	2,355/2,285 (97%)/10/3
TOTAL DRAINS/SAMPLED/EXCEEDANCES:	36/30/0
TOTAL VOLUME OF WATER GENERATED:	50,000 GALLONS
DUST SAMPLES/EXCEEDANCES:	10/0

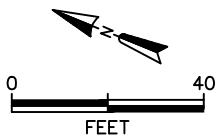


Figure 5
Building 15 PCB Sample Results
Comprehensive
Maintenance Operations Center
San Francisco International Airport

Tables

Table 1
Analytical Data Summary
2013 Remediation and Investigation Results for Building 10 (Tire Shops/Parts Storage)
San Francisco Maintenance Center
United Airlines

Sample ID	Date	Location Description	Sampling Observation	Matrix	Purpose	Units	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total Detected PCBs
					RBSL - Interior Dust (µg/100cm ²):	2.7	DC	DC	DC	DC	DC	DC	DC	-	DC	-
					RBSL - Grate Wipe (µg/100cm ²):	105	3.7	3.7	3.7	3.7	3.7	3.7	3.7	-	3.7	-
					RBSL - Water (µg/L):	-	-	-	-	-	-	-	-	-	-	3.3
For Reference Only - Not the standards for this work					TSCA Screening Level - Sludge (µg/kg):	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	-
					TSCA Screening Level - Used Oil (µg/kg):	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-
					TSCA Screening Level - Non-Used Oil (µg/kg):	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	-
					TSCA Screening Level - Wipe (µg/100cm ²):	10	10	10	10	10	10	10	10	10	10	-
					TSCA Screening Level - Water (µg/L):	3	3	3	3	3	3	3	3	3	3	-
<u>IW LINE AND DRAIN SYSTEM</u>																
<u>Drain Grates</u>																
B10-L1D1-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L1D2-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L1D3-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L1D4-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L1D5-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L1D6-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2D1-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2D2-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2D4-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2D5-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2D6-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.3	< 1.0	0.3*
B10-L2D7-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2D8-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2D9-G-Conf.	6/28/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.6	< 1.0	3.6*
B10-L2D10-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2D11-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2D12-G	6/5/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.7	< 1.0	0.7*
<u>Rinsate</u>																
B10-L1-Rinse	6/5/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L1-Rinse-Dup	6/5/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-L2-Rinse	6/5/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
<u>DUST SAMPLING</u>																
B10-D1	7/10/2013	Dust	Top of blue electrical switch box	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-D2	7/10/2013	Dust	Top of flourescent light fixture	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-D3	7/10/2013	Dust	Top of blue cabinet	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-D4	7/10/2013	Dust	Top of beige cabinet (paint shop)	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-D5	7/10/2013	Dust	Top of HVAC vent (paint shop)	Filter/Wipe	Assessment	µg/100cm ²	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	26 J+	< 5.0	< 5.0	< 5.0	26
B10-D6	7/10/2013	Dust	Top of electrical control box (paint shop)	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-D7	7/10/2013	Dust	Top of vent hood (paint shop)	Filter/Wipe	Assessment	µg/100cm ²	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	11	< 5.0	< 5.0	< 5.0	11
B10-D7-DUP	7/10/2013	Dust	Top of vent hood (paint shop)	Filter/Wipe	Assessment	µg/100cm ²	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	16 J+	< 5.0	< 5.0	< 5.0	16
B10-D8	7/10/2013	Dust	Top of electric switches	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-D9	7/10/2013	Dust	Top of gray shelving	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B10-D10	7/10/2013	Dust	Top of room adjacent to stairs	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.2	< 1.0	< 1.0	2.2

Table 1
Analytical Data Summary
2013 Remediation and Investigation Results for Building 10 (Tire Shops/Parts Storage)
San Francisco Maintenance Center
United Airlines

Sample ID	Date	Location Description	Sampling Observation	Matrix	Purpose	Units	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total Detected PCBs
<u>FLOOR UTILITY PORTS NOT IN SERVICE</u>																
Utility Ports																
B10-UP-1A-W*	6/24/2013	Utility Port	Water	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	1.2 J+	8.6	14.5	< 1.0	< 1.0	24.3
B10-UP-1B-W*	6/24/2013	Utility Port	Air	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	0.6	2.3	3.0	< 1.0	< 1.0	5.9
B10-UP-1C-W*	6/24/2013	Utility Port	220VAC	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.6 J+	3.3 J+	< 1.0	< 1.0	9.9
B10-UP-1D-W*	6/24/2013	Utility Port	Hot (Steam?)	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	18.4	9.9	< 1.0	< 1.0	28.3
B10-UP-1E-W*	6/24/2013	Utility Port	Vacuum	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	21.1 J+	13.5 J+	< 1.0	< 1.0	34.6
B10-UP-1F-W*	6/24/2013	Utility Port	110VAC	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.9	4.6	< 1.0	< 1.0	9.5
B10-UP-2A-W*	6/24/2013	Utility Port	110VAC	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	1.0	1.5	0.9	< 1.0	< 1.0	3.3
B10-UP-2B-W*	6/24/2013	Utility Port	220VAC	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	1.3	1.5	0.8	< 1.0	< 1.0	3.6
B10-UP-2C-W*	6/24/2013	Utility Port	Water	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	1.0	2.9	2.1	< 1.0	< 1.0	6.0
B10-UP-2C-W-DUP*	6/24/2013	Utility Port	Water	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	1.1	3.3	2.5	< 1.0	< 1.0	6.9
B10-UP-2D-W*	6/24/2013	Utility Port	Air	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	0.9	2.3	0.8	< 1.0	< 1.0	4.0
B10-UP-2E-W*	6/24/2013	Utility Port	Hot (Steam?)	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	0.9	3.9	4.3	< 1.0	< 1.0	9.1
B10-UP-2F-W*	6/24/2013	Utility Port	Vacuum	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	3.6	6.3	2.3	< 1.0	< 1.0	12.2
B10-UP-3A-W*	6/24/2013	Utility Port	Water or Air	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	0.9	2.4	1.2	< 1.0	< 1.0	4.5
B10-UP-3B-W*	6/24/2013	Utility Port	Water or Air	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	1.2	3.9	2.2	< 1.0	< 1.0	7.3
B10-UP-3C-W*	6/24/2013	Utility Port	Sealed w/ concrete (electric)	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	1.3	6.2	3.8	< 1.0	< 1.0	11.3
B10-UP-3D-W*	6/24/2013	Utility Port	Hot (Steam?)	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.6	1.8	< 1.0	< 1.0	4.4
B10-UP-3E-W*	6/24/2013	Utility Port	Vacuum	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.7	1.1	< 1.0	< 1.0	2.9
B10-UP-3F-W*	6/24/2013	Utility Port	Sealed w/ concrete (electric)	Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.6	2.1	< 1.0	< 1.0	5.7
B10-UP-1A	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	2600 J+	44000 J+	63000 J+	< 1,000	< 1,000	109,600
B10-UP-1B	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 5,000	< 5,000	35000 J+	< 5,000	< 5,000	29000 J+	23000 J+	< 5,000	< 5,000	87,000
B10-UP-1C	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	2700 J+	22000 J+	9700 J+	< 1,000	< 1,000	34,400
B10-UP-1D	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 5,000	< 5,000	< 5,000	< 5,000	< 5,000	68,000	42,000	< 5,000	< 5,000	110,000
B10-UP-1E	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 5,000	< 5,000	< 5,000	< 5,000	< 5,000	70000 J+	33000 J+	< 5,000	< 5,000	103,000
B10-UP-1F	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	< 1,000	14000 J+	13000 J+	< 1,000	< 1,000	27,000
B10-UP-2A	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	5,300	9,000	2,800	< 1,000	< 1,000	17,100
B10-UP-2B	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 2,000	< 2,000	< 2,000	< 2,000	13000 J+	17000 J+	7800 J+	< 2,000	< 2,000	37,800
B10-UP-2C	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 2,000	< 2,000	< 2,000	< 2,000	4500 J+	10000 J+	6800 J+	< 2,000	< 2,000	21,300
B10-UP-2D	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	6,500	11,000	4,400	< 1,000	< 1,000	21,900
B10-UP-2E	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	4200 J+	21,000	23,000	< 1,000	< 1,000	48,200
B10-UP-2F	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 2,000	< 2,000	< 2,000	< 2,000	13000 J+	19000 J+	7600 J+	< 2,000	< 2,000	39,600
B10-UP-3A	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	2400 J+	9000 J+	3700 J+	< 1,000	< 1,000	15,100
B10-UP-3B	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	4200 J+	13000 J+	7900 J+	< 1,000	< 1,000	25,100
B10-UP-3C	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	2000 J+	5500 J+	6900 J+	< 1,000	< 1,000	14,400
B10-UP-3D	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	< 1,000	4200 J+	2600 J+	< 1,000	< 1,000	6,800
B10-UP-3E	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	< 1,000	12000 J+	6500 J+	< 1,000	< 1,000	18,500
B10-UP-3F	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	2400 J+	11000 J+	6200 J+	< 1,000	< 1,000	19,600
B10-UP-3F-DUP	6/24/2013	Utility Port		Soil	Removed Sediment Profile	µg/kg	< 1,000	< 1,000	< 1,000	< 1,000	1800 J+	8300 J+	5700 J+	< 1,000	< 1,000	15,800
				RBSL = Risk-Based Screening Level		Total PCB Detection above RBSL						J+ = Detected sample result qualified as estimated and biased high				
				DC = Detected Concentration		Individual Aroclor above RBSL										
				NA = Not Analyzed		*Wipe sample normalizations based on actual sample surface area.						UJ= Nondetected sample result qualified as estimated				

Table 2
Analytical Data Summary
2013 Remediation and Investigation Results for Building 15 (Shops/Storage/Warehouse)
San Francisco Maintenance Center
United Airlines

Sample ID	Date	Location Description	Sampling Observation	Matrix	Purpose	Units	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total Detected PCBs
					RBSL - Interior Dust (µg/100cm ²):	2.7	DC	DC	DC	DC	DC	DC	DC	-	DC	-
					RBSL - Grate Wipe (µg/100cm ²):	105	3.7	3.7	3.7	3.7	3.7	3.7	3.7	-	3.7	-
					RBSL - Water (µg/L):	-	-	-	-	-	-	-	-	-	-	3.3
For Reference Only - Not the standards for this work					TSCA Screening Level - Sludge (µg/kg):	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	-
					TSCA Screening Level - Used Oil (µg/kg):	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-
					TSCA Screening Level - Non-Used Oil (µg/kg):	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	-
					TSCA Screening Level - Wipe (µg/100cm ²):	10	10	10	10	10	10	10	10	10	10	-
					TSCA Screening Level - Water (µg/L):	3	3	3	3	3	3	3	3	3	3	-
IW LINE AND DRAIN SYSTEM																-
Drain Grates																-
B15-L1D1-G	6/20/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L1D2-G	6/20/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L1D3-G	6/20/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L2D1-G	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L2D1-G-DUP	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L2D2-G	6/20/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L2D3-G	6/20/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L3D1-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L3D2-G	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L3D2-G-DUP	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L3D4-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L4D2-G	6/20/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L4D3-G	6/20/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L4D5-G	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L5D1-G	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L5D2-G	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L6D1-G	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L6D2-G	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	0.3	< 1.0	< 1.0	1.6
B15-L7D1-G	6/21/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L7D2-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L7D5-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L7D6-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L7D7-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L7D8-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L7D8-G-DUP	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L8D1-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L8D2-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L9D2-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L9D3-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L10D1-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L10D2-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L10D3-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L10D4-G	6/19/2013	Floor Drain		Wipe	Cleaning Confirmation	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-

Table 2
Analytical Data Summary
2013 Remediation and Investigation Results for Building 15 (Shops/Storage/Warehouse)
San Francisco Maintenance Center
United Airlines

Sample ID	Date	Location Description	Sampling Observation	Matrix	Purpose	Units	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total Detected PCBs
<u>RINSATE</u>																
B15-L1-Rinse	6/20/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	-
B15-L2-Rinse	6/20/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L2-Rinse-Dup	6/20/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L3-Rinse	6/20/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-L4-Rinse	6/24/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.5	4.9	< 1.0	< 1.0	10.4
B15-L4-Rinse-Dup	6/24/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.9	4.4	< 1.0	< 1.0	10.3
B15-L5-Rinse	6/24/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.8	< 1.0	< 1.0	< 1.0	1.8
B15-L6-Rinse	6/24/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.0	< 1.0	< 1.0	< 1.0	2.0
B15-L7-Rinse	6/24/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.5	< 1.0	< 1.0	< 1.0	6.5
B15-L8-Rinse	6/24/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	1.3
B15-L9-Rinse	6/24/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.5	< 1.0	< 1.0	< 1.0	4.5
B15-L10-Rinse	6/24/2013	Floor Drain		Water	Cleaning Confirmation	µg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.5	< 1.0	< 1.0	< 1.0	1.5
<u>DUST SAMPLING</u>																
B15-D1	7/10/2013	Dust	Top of piping - D8	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D2	7/10/2013	Dust	Top of blue cabinet - G7	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D3	7/10/2013	Dust	Top of gray locker - I8	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D4	7/10/2013	Dust	Top of gray locker - G11	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D4-DUP	7/10/2013	Dust	Top of gray locker - G11	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D5	7/10/2013	Dust	Top of blue cabinet - F17	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D6	7/10/2013	Dust	Top of gray electrical box - I20	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D7	7/10/2013	Dust	Top of electrical box - I20	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D8	7/10/2013	Dust	Top of elevated shelft - F19	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D9	7/10/2013	Dust	Top of electrical box - B22	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
B15-D10	7/10/2013	Dust	Top of shelving - D23	Filter/Wipe	Assessment	µg/100cm ²	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-

RBSL = Risk-Based Screening Level
DC = Detected Concentration
NA = Not Analyzed

Total PCB Detection above RBSL
Individual Aroclor above RBSL
*Wipe sample normalizations based on actual sample surface area.

J+ = Detected sample result qualified
as estimated and biased high
UJ= Nondetected sample result qualified as estimated

Appendix A
Waste Manifests

trk 2810 trk 30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294	2. Page 1 of 1	3. Emergency Response Phone (000) 433-3718	4. Manifest Tracking Number 006780535 FLE		
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128 Generator's Phone: (415) 634-4400							
6. Transporter 1 Company Name DonBerto Transportation, Inc U.S. EPA ID Number: CAD982513632							
7. Transporter 2 Company Name U.S. EPA ID Number:							
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Farmingtonville, UT 84029 U.S. EPA ID Number: UTD991301748							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt/Vol.	13. Waste Codes
	X	1. NA3082. HAZARDOUS WASTE. LIQUID. N.O.S.. (CADMIUM. CHROMIUM), 9, PG III	01	TT	3900 G	342	0006 0007 0008 0011
		2.					
		3.					
		4.					
14. Special Handling Instructions and Additional Information 1. CH646266B ERG#171							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. Generator's/Offeror's Printed/Typed Name: [Signature] Signature: Tencey Tyce - Small 18/2013 Month Day Year							
INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials Transporter signature (for exports only): Transporter 1 Printed/Typed Name: ED RICE Signature: [Signature] Month Day Year: 08/20/13 Transporter 2 Printed/Typed Name: Signature: Month Day Year:						
	18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: U.S. EPA ID Number: 18b. Alternate Facility (or Generator) Facility's Phone: Month Day Year: 18c. Signature of Alternate Facility (or Generator):						
DESIGNATED FACILITY	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H132 2. 3. 4.						
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name: Signature: Month Day Year:						

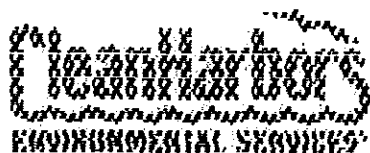
TX 250 TX 98

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 006780534 FLE		
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128				Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128			
6. Transporter 1 Company Name DenBeste Transportation, Inc.				U.S. EPA ID Number CAD982513632			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029 Facility's Phone: 435-884-8800				U.S. EPA ID Number UTD991301748			
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No. Type		11. Total Quantity	12. Unit Wt/Vol.	13. Waste Codes
	1. NA3082. HAZARDOUS WASTE. LIQUID. N.O.S.. (CADMIUM. CHROMIUM), 9, PG III		01 IT 4000 G				342 D006 D007 D008 D011
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information 1. CH646266B ERG#171							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Officer's Printed/Typed Name Tracey Tyres - Small				Signature 		Month Day Year 18 12 13	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:							
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name: Tim Skiles Signature: Month Day Year: 18 12 13 Transporter 2 Printed/Typed Name: Signature: Month Day Year:							
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: U.S. EPA ID Number: 18b. Alternate Facility (or Generator) Facility's Phone: Month Day Year: 18c. Signature of Alternate Facility (or Generator) Month Day Year:							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H132 2. 3. 4.							
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name: Signature: Month Day Year:							

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041219294	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 006780533 FLE						
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128 Generator's Phone: (415) 634-4400 ATTN: Tracey Tyree - mail					Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128						
6. Transporter 1 Company Name DanBasta Transportation, Inc					U.S. EPA ID Number CAD582513632						
7. Transporter 2 Company Name					U.S. EPA ID Number						
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Farmingtonville, UT 84029 (435) 894-8900					U.S. EPA ID Number UTD991301748						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes			
X	1. NA3082. HAZARDOUS WASTE. LIQUID. N.O.S.. (CADMIUM. CHROMIUM), 9, PG III			001	TT	4200	G	342	D006 D007		
	2.							D008 D011			
	3.										
	4.										
14. Special Handling Instructions and Additional Information 1. CH646265B ERG#171											
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Officer's Printed/Typed Name Tracey Tyree - Small				Signature 		Month 8		Day 20		Year 13	
16. International Shipment: <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.				Port of entry/exit:		Date leaving U.S.:					
Transporter signature (for exports only):											
17. Transporter Acknowledgment of Receipt of Materials				Signature		Month		Day		Year	
Transporter 1 Printed/Typed Name LAW HARKER						8		20		13	
Transporter 2 Printed/Typed Name				Signature		Month		Day		Year	
18. Discrepancy											
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection											
Manifest Reference Number:											
18b. Alternate Facility (or Generator)										U.S. EPA ID Number	
Facility's Phone:											
18c. Signature of Alternate Facility (or Generator)										Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1. H132										2. 3. 4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a											
Printed/Typed Name										Signature	
										Month Day Year	

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 006780536 FLE					
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128				Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128						
Generator's Phone: (650) 634-4409 ATTN: Tracey Tyree-Small										
6. Transporter 1 Company Name DenBeste Transportation, Inc				U.S. EPA ID Number CAD982513632						
7. Transporter 2 Company Name				U.S. EPA ID Number						
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029				U.S. EPA ID Number UTD991301748						
Facility's Phone: (435) 884-8900										
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) 1. HA3082. HAZARDOUS WASTE. LIQUID. N.O.S.. (CADMIUM, CHROMIUM), 9, PG III			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
				No.	Type					
				01	TT					
X				4000	G	342 D008 D007 D008 D011				
2.										
3.										
4.										
14. Special Handling Instructions and Additional Information 1. CHS46256B ERG#171										
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
Generator's/Offor's Printed/Typed Name <i>Tracey Tyree-Small</i>				Signature <i>[Signature]</i>		Month Day Year 1 8 / 20 13				
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:										
17. Transporter Acknowledgment of Receipt of Materials										
Transporter 1 Printed/Typed Name <i>Jos Mendonca</i>				Signature <i>[Signature]</i>		Month Day Year 08 / 20 / 13				
Transporter 2 Printed/Typed Name				Signature		Month Day Year				
18. Discrepancy										
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection										
Manifest Reference Number:										
18b. Alternate Facility (or Generator) U.S. EPA ID Number										
Facility's Phone:										
18c. Signature of Alternate Facility (or Generator) Month Day Year										
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)										
1. H132		2.		3.		4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a										
Printed/Typed Name				Signature		Month Day Year				



Land Disposal Restriction
Notification Form

Page : 1 of 1

Printed Date : Aug 19, 2013

MANIFEST INFORMATION

Generator : United Airlines - Bldg 49
Address: Maint. Base Bldg. 49 SFOMP
San Francisco, CA 94128

Manifest Tracking Info.

EPA ID #: CAD041319294

Sales Order No: JO7759533-001

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH646266B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D006	Toxicity characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead
D011	Toxicity Characteristic for Silver

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
CADMIUM	Y	N	N
CHROMIUM	Y	N	N
LEAD	Y	N	N
SILVER	Y	N	N
TOTAL PCB'S (SUM OF ALL PCB ISOMERS, OR ALL AROCHL	Y	N	N

Certification

Applies to
Manifest Line
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.


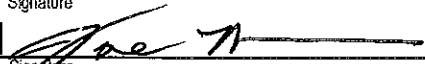
1.

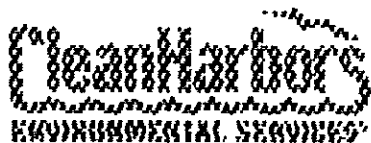
Waste analysis data, where available, is attached.

Signature : _____ Print Name : _____
Title : _____ Date : _____

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		Generator ID Number CAD041319294		2. Page 1 of 3		3. Emergency Response Page (800) 483-3718		4. Manifest Tracking Number 006780549 FLE			
5. Generator's Name and Main Address United Airlines Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128 (650) 634-4409 ATTN: Tracey Tyree-Small						Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128					
Generator's Phone:						U.S. EPA ID Number MAD039322250 PA CAD982513632					
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc PA DENBESTE TRANSPORTATION INC.						U.S. EPA ID Number					
7. Transporter 2 Company Name						U.S. EPA ID Number					
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029 (435) 884-8000						U.S. EPA ID Number UTD991301748					
Facility's Phone:											
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes				
			No.	Type							
	x	1. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III	01	TT	4000	G	342	D006	D007		
							D008	D011			
14. Special Handling Instructions and Additional Information 1. CH646266B ERG#171											
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Officer's Printed/Typed Name BRUCE CHRISTENSEN											
Signature 											
Month Day Year 8 22 13											
INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____										
	Transporter signature (for exports only): _____										
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials										
	Transporter 1 Printed/Typed Name JOE MENDONCA										
Signature 											
Month Day Year 08 22 13											
Transporter 2 Printed/Typed Name											
Signature											
Month Day Year											
DESIGNATED FACILITY	18. Discrepancy										
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection										
	Manifest Reference Number:										
	18b. Alternate Facility (or Generator) U.S. EPA ID Number										
	Facility's Phone:										
18c. Signature of Alternate Facility (or Generator)											
Month Day Year											
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1. H132		2.		3.		4.					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a											
Printed/Typed Name											
Signature											
Month Day Year											



Land Disposal Restriction
Notification Form

Page : 1 of 1

Printed Date : Aug 20, 2013

MANIFEST INFORMATION

Generator : United Airlines - Bldg 49
Address: Maint. Base Bldg. 49 SFOMP
San Francisco, CA 94128

Manifest Tracking Info.

EPA ID# : C A D 0 4 1 3 1 9 2 9 4

Sales Order No: JO7761852-001

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH646266B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D006	Toxicity characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead
D011	Toxicity Characteristic for Silver

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
CADMIUM	Y	N	N
CHROMIUM	Y	N	N
LEAD	Y	N	N
SILVER	Y	N	N
TOTAL PCB'S (SUM OF ALL PCB ISOMERS, OR ALL AROCHL	Y	N	N

Certification

Applies to
Manifest Line
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached.

Signature :

Print Name

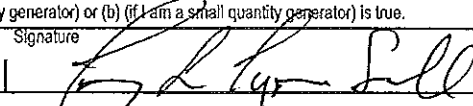
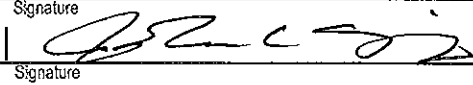
Title :

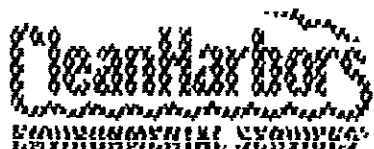
Date :

Bruce Christensen
8/22/13

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Hazardous Waste ID Number CA90041819294	2. Page 1 of 1	3. Generator's ID Number (800) 483-3718	4. Manifest Tracking Number 006780544 FLE			
5. Generator's Name and Address United Airlines Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128 (650) 634-4409 ATTN: Tracey Tyree-Small					Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128			
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc DENBESTE TRANSPORTATION INC.					U.S. EPA ID Number MA0639322250 CA0982513632			
7. Transporter 2 Company Name D					U.S. EPA ID Number			
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029 (435) 864-8900					U.S. EPA ID Number UTD991301748			
Facility's Phone:								
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
			No.	Type				
	x	1. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III	01	TT	4200	G	342 D008 D007 D008 D011	
14. Special Handling Instructions and Additional Information 1. CH046266B ERG#171								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Officer's Printed/Typed Name Tracey Tyree-Small					Signature 		Month Day Year 8/22/13	
TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
	17. Transporter Acknowledgment of Receipt of Materials							
TRANSPORTER	Transporter 1 Printed/Typed Name JOTTW SPRINGER					Signature 		Month Day Year 8/22/13
	Transporter 2 Printed/Typed Name					Signature		Month Day Year
DESIGNATED FACILITY	18. Discrepancy							
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
	Manifest Reference Number: _____							
	18b. Alternate Facility (or Generator) U.S. EPA ID Number							
	Facility's Phone: _____							
	18c. Signature of Alternate Facility (or Generator) Month Day Year							
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
	1.	2.	3.	4.				
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
	Printed/Typed Name					Signature		Month Day Year



Land Disposal Restriction
Notification Form

Page : 1 of 1

Printed Date : Aug 20, 2013

MANIFEST INFORMATION

Generator : United Airlines - Bldg 49
Address: Maint. Base Bldg. 49 SFOMP
San Francisco, CA 94128

Manifest Tracking Info.

EPA ID #: CAD041319294

Sales Order No: JO7761852-001

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH046266B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D006	Toxicity characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead
D011	Toxicity Characteristic for Silver

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
CADMIUM	Y	N	N
CHROMIUM	Y	N	N
LEAD	Y	N	N
SILVER	Y	N	N
TOTAL PCB'S (SUM OF ALL PCB ISOMERS, OR ALL AROCHL	Y	N	N

Certification

Applies to
Manifest Line
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached.

Signature :

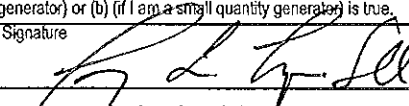
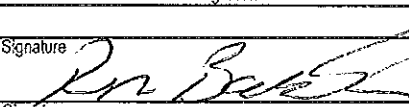
[Signature]
Env Spec

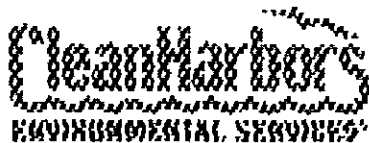
Print Name

[Signature]
8/22/13

Title :

Date :

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 006780543 FLE		
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128 (650) 634-4409 ATTN: Tracy Tyree-Small				Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128			
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc				U.S. EPA ID Number MAD039322250			
7. Transporter 2 Company Name				U.S. EPA ID Number CAD0382513632			
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantville, UT 84029 Facility's Phone: (435) 884-8900				U.S. EPA ID Number UTD991301748			
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
			No.	Type			
	X	1. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III	01	TT	4200	G	342 D006 D007 D008 D011
14. Special Handling Instructions and Additional Information 1. CH646266B ERG#171							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's Office Printed/Typed Name Tracy Tyree-Small				Signature 		Month Day Year 8/22/13	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:							
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name RON BARKER				Signature 		Month Day Year 08/22/13
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number:						
	18b. Alternate Facility (or Generator)				U.S. EPA ID Number		
	Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H132		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	



Land Disposal Restriction
Notification Form

Page : 1 of 1

Printed Date : Aug 20, 2013

MANIFEST INFORMATION

Generator : United Airlines - Bldg 49
Address: Maint. Base Bldg. 49 SFOMP
San Francisco, CA 94128

Manifest Tracking Info.

EPA ID #: CAD041319204

Sales Order No: JO7761852-001

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH846286B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D006	Toxicity characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead
D011	Toxicity Characteristic for Silver

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
CADMIUM	Y	N	N
CHROMIUM	Y	N	N
LEAD	Y	N	N
SILVER	Y	N	N
TOTAL PCB'S (SUM OF ALL PCB ISOMERS, OR ALL AROCHL	Y	N	N

Certification

Applies to
Manifest Line
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached.

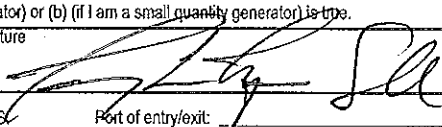
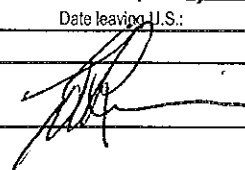
Signature :

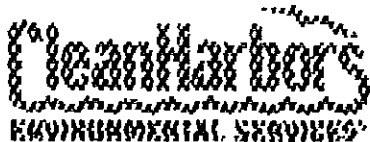
Print Name

Title :

Date :

Theresa Lynn-Small
8/22/13

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 006780542 FLE		
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128 (650) 634-4409 ATTN: Tracey Tyree-Small				Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128			
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc - DENBESTE TRANSPORTATION INC				U.S. EPA ID Number MAD039322250 CAD982513682			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029 (435) 884-8900				U.S. EPA ID Number UTD991301748			
Facility's Phone:							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
			No.	Type			
	X	1. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III	01	TT	3900	G	342 D006 D007 D008 D011
14. Special Handling Instructions and Additional Information 1. CH646266B ERG#171							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Officer's Printed/Typed Name Tracey Tyree-Small				Signature 		Month Day Year 8 22 13	
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name ED RICE				Signature 		Month Day Year 10 22 13
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number: _____						
	18b. Alternate Facility (or Generator)				U.S. EPA ID Number		
	Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)							
Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H132		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	



Land Disposal Restriction
Notification Form

Page : 1 of 1

Printed Date : Aug 20, 2013

MANIFEST INFORMATION

Generator : United Airlines - Bldg 49

Address: Maint. Base Bldg. 48 SFOMP
San Francisco, CA 94128

Manifest Tracking Info.

EPA ID#: CAD041319294

Sales Order No: JO7761852-001

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH846266B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code

D006
D007
D008
D011

EPA Waste SubCategory

Toxicity characteristic for Cadmium
Toxicity Characteristic for Chromium
Toxicity Characteristic for Lead
Toxicity Characteristic for Silver

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
CADMIUM	Y	N	N
CHROMIUM	Y	N	N
LEAD	Y	N	N
SILVER	Y	N	N
TOTAL PCB'S (SUM OF ALL PCB ISOMERS, OR ALL AROCHL	Y	N	N

Certification

Applies to
Manifest Line
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached

Signature :

[Handwritten Signature]
Env Specialist

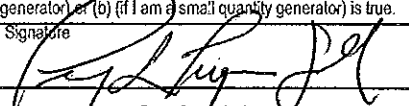
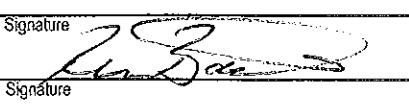
Print Name

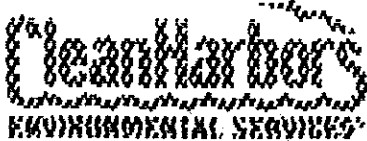
Percy Rene Small

Title :

Date :

8/22/13

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 006780629 FLE		
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128				Generator's Site Address (if different than mailing address) Maint. Base Bldg 49 SFOMP San Francisco, CA 94128			
Generator's Phone: (650) 634-4409 ATTN: Tracey Tyree-Small							
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc				U.S. EPA ID Number MA003932250 RB			
7. Transporter 2 Company Name				U.S. EPA ID Number MA003932250 RB			
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029				U.S. EPA ID Number UTD991301748			
Facility's Phone: (435) 884-8900							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
			No.	Type			
	x	1. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III	01	TT	4200	G	342 D006 D007 D008 D011
14. Special Handling Instructions and Additional Information 1. CH646266B ERG#171							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offor's Printed/Typed Name Tracey Tyree-Small				Signature 		Month Day Year 8 26 13	
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name Kon BARKER				Signature 		Month Day Year 8 26 13
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number: _____						
	18b. Alternate Facility (or Generator)				U.S. EPA ID Number		
	Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H132		2. _____		3. _____		4. _____	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a							
Printed/Typed Name				Signature		Month Day Year	



Land Disposal Restriction Notification Form

Page : 1 of 1

Printed Date : Aug 28, 2013

MANIFEST INFORMATION

Generator : United Airlines - Bldg 49
Address: Maint. Base Bldg. 49 SFOMP
San Francisco, CA 94128

Manifest Tracking Info.

EPA ID #: CAD041310204

Sales Order No: JO7761852-001

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH846266B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D006	Toxicity characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead
D011	Toxicity Characteristic for Silver

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
CADMIUM	Y	N	N
CHROMIUM	Y	N	N
LEAD	Y	N	N
SILVER	Y	N	N
TOTAL PCB'S (SUM OF ALL PCB ISOMERS, OR ALL AROCHL	Y	N	N

Certification

Applies to
Manifest Line
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached

Signature :

Print Name

Title :

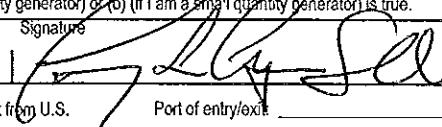
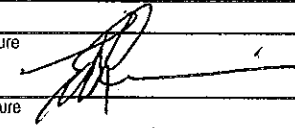
Date :

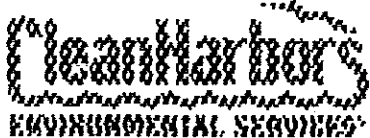
[Signature]
Env. Spec.

[Signature]
8/28/13

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Page 1 of 1		3. (800) 485-3718		4. Manifest Tracking Number 006780630 FLE				
5. Generator's Name and Address United Airlines Bldg 49 United Airlines Bldg 49 SFOMP SF Intern'l Airport San Francisco, CA 94128 (650) 634-4409 ATTN: Tracey Tyree-Small										
Generator's Site Address (if different than mailing address) Maint. Base Bldg 49 SFOMP San Francisco, CA 94128										
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc DENBESTE TRANSPORTATION INC						U.S. EPA ID Number MAD039222250 CAD482513632				
7. Transporter 2 Company Name						U.S. EPA ID Number				
8. Designated Facility Name and Site Address Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029 (435) 884-8900						U.S. EPA ID Number UTD991301748				
Facility's Phone:										
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))				10. Containers No. Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
	X	1. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III				01 TT	4,200	G	342 D006 D007 D008 D011	
		2.								
		3.								
		4.								
14. Special Handling Instructions and Additional Information 1. CH646266B ERG#171										
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
Generator's/Officer's Printed/Typed Name Tracey Tyree-Small										
Signature 										
Month Day Year 8/26/13										
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:										
17. Transporter Acknowledgment of Receipt of Materials										
Transporter 1 Printed/Typed Name ED RICE										
Signature 										
Month Day Year 08/26/13										
Transporter 2 Printed/Typed Name										
Signature										
Month Day Year										
TRANSPORTER	18. Discrepancy									
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
	Manifest Reference Number:									
	18b. Alternate Facility (or Generator) U.S. EPA ID Number									
	Facility's Phone:									
DESIGNATED FACILITY	18c. Signature of Alternate Facility (or Generator) Month Day Year									
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
	1. H132 2. 3. 4.									
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a									
	Printed/Typed Name Signature Month Day Year									



Land Disposal Restriction
Notification Form

Page : 1 of 1

Printed Date : Aug 26, 2013

MANIFEST INFORMATION

Generator : United Airlines - Bldg 49
Address: Maint. Base Bldg. 49 SFOMP
San Francisco, CA 94128

Manifest Tracking Info.

EPA ID #: CAD041319294

Sales Order No: JO7761852-001

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH646268B	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code

D006

D007

D008

D011

EPA Waste SubCategory

Toxicity characteristic for Cadmium

Toxicity Characteristic for Chromium

Toxicity Characteristic for Lead

Toxicity Characteristic for Silver

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
CADMIUM	Y	N	N
CHROMIUM	Y	N	N
LEAD	Y	N	N
SILVER	Y	N	N
TOTAL PCB'S (SUM OF ALL PCB ISOMERS, OR ALL AROCHL	Y	N	N

Certification

Applies to
Manifest Line
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached.

Signature :

Print Name

Title :

Date :

Theresa Green Small
8/26/13

DJ7764132

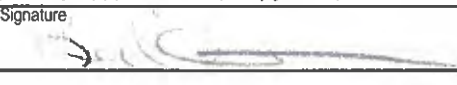

SC PPW 3/3/2011

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

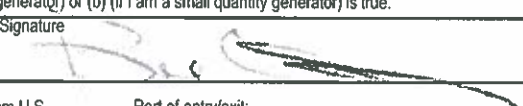
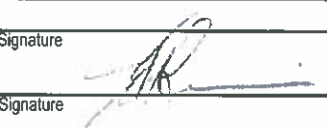
Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		Generator ID Number CAD041319294		2 Page 1 of 2	Emergency Response Phone (800) 483-3718		4. Manifest Tracking Number 006780627 FLE		
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128 (650) 634-4409 ATTN: Tracey Tyree-Small					Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128				
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc					U.S. EPA ID Number MAD039322250				
7. Transporter 2 Company Name <i>Clean Harbors & Co</i>					U.S. EPA ID Number <i>MAD03932250</i>				
8. Designated Facility Name and Site Address Clean Harbors San Jose LLC 1021 Berryessa Road San Jose, CA 95133 (408) 441-0962					U.S. EPA ID Number CAD059494310				
Facility's Phone:									
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	X	1. UN3085, WASTE OXIDIZING SOLID, CORROSIVE, N.O.S., (SODIUM HYDROXIDE, SODIUM PERMANGANATE), 5.1, (8), PG II			4	DM	1915	P	122 D001 D002
	X	2. UN1789, WASTE HYDROCHLORIC ACID, 8, PG II			2	DF	70	G	791 D002
	X	3. UN1760, WASTE CORROSIVE LIQUIDS, N.O.S., (SODIUM HYDROXIDE), 8, PG II			1	DF	55	G	121 D002
	X	4. NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (CHROMIUM, NICKEL), 9, PG III			2	DM	265	P	181 D007
14. Special Handling Instructions and Additional Information 1. CH512477 ERG#140 4X55 2. 365803 ERG#157 1X55, 1X15 3. 366534 ERG#154 1X55 4. 204371 ERG#171 2X55									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a); (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Officer's Printed/Typed Name <i>Karl Newby</i>					Signature <i>[Signature]</i>		Month Day Year <i>10/27/13</i>		
TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____								
	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <i>B13 DAVID WATKINS</i> Signature <i>[Signature]</i> Month Day Year <i>10/27/13</i> Transporter 2 Printed/Typed Name <i>[Signature]</i> Signature <i>[Signature]</i> Month Day Year <i>10/27/13</i>								
	18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: _____ U.S. EPA ID Number: _____								
DESIGNATED FACILITY	18b. Alternate Facility (or Generator) U.S. EPA ID Number: _____								
	Facility's Phone: _____								
	18c. Signature of Alternate Facility (or Generator) Month Day Year _____								
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H070 2. H070 3. H070 4. H141									
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a Printed/Typed Name <i>Margarita Ortega</i> Signature <i>[Signature]</i> Month Day Year <i>10/27/13</i>									

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

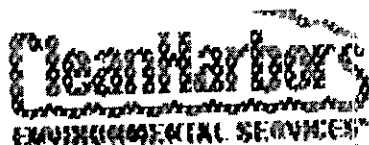
UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294		2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718		4. Manifest Tracking Number 006768828 FLE	
		5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128		Generator's Site Address (If different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128				
6. Transporter 1 Company Name Clean Harbor Environmental Services Inc		U.S. EPA ID Number MAD039922250		7. Transporter 2 Company Name		U.S. EPA ID Number		
8. Designated Facility Name and Site Address Clean Harbor San Jose LLC 1021 Berryessa Road San Jose, CA 95133		U.S. EPA ID Number CAD059494310		Facility's Phone: (408) 441-0962				
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
x	1. HA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III			CL IT		E		342 D008 D007
	2.							D008 D011
	3.							
	4.							
14. Special Handling Instructions and Additional Information 1. CH674778 ERG0171								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offoror's Printed/Typed Name DAVE CHRISTENSEN				Signature 		Month Day Year 9 16 13		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____								
17. Transporter Acknowledgment of Receipt of Materials								
Transporter 1 Printed/Typed Name ED RICE				Signature 		Month Day Year 09 06 13		
Transporter 2 Printed/Typed Name				Signature		Month Day Year		
18. Discrepancy								
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
Manifest Reference Number: _____								
18b. Alternate Facility (or Generator) U.S. EPA ID Number								
Facility's Phone: _____								
18c. Signature of Alternate Facility (or Generator) Month Day Year								
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1. H141		2.		3.		4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name				Signature		Month Day Year		

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 006768827 FLE		
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg 49 SFOMP SF Intern'l Airport San Francisco, CA 94128 Generator's Phone: (650) 634-4409 ATTN: Tracey Tyree-Smail		Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128					
6. Transporter 1 Company Name Clean Harbor Environmental Services Inc.		U.S. EPA ID Number MAD039322250					
7. Transporter 2 Company Name		U.S. EPA ID Number					
8. Designated Facility Name and Site Address Clean Harbor San Jose LLC 1021 Berryessa Road San Jose, CA 95133 Facility's Phone: (408) 441-0002		U.S. EPA ID Number CAD059494310					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
x	1. HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III	21	TT	4000	G	942 D008 D007 D008 D011	
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information 1. CH674777B ERG#171							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offero's Printed/Typed Name Bruce Christensen		Signature 		Month Day Year 9/6/13			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name Holt Parker		Signature 		Month Day Year 9/6/13			
Transporter 2 Printed/Typed Name		Signature		Month Day Year			
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number:							
18b. Alternate Facility (or Generator) U.S. EPA ID Number							
Facility's Phone:							
18c. Signature of Alternate Facility (or Generator) Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H141	2.	3.	4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name		Signature		Month Day Year			

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 006768826 FLE		
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg 449 SFOMP 5F Intern'l Airport San Francisco, CA 94128				Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128			
Generator's Phone: (855) 894-4409 ATTN: Tracey Tyree-Small							
6. Transporter 1 Company Name DENBESTE TRANSPORTATION INC Clean Harbors Environmental Services Inc				U.S. EPA ID Number CAD02513632 MAD039322250			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address Clean Harbors San Jose LLC 1021 Berryessa Road San Jose, CA 95133				U.S. EPA ID Number CAD059494310			
Facility's Phone: (408) 441-0982							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
x	1. HAS082, HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 8, PG III	01 TT		4000	G	342 D008 D007 D008 D011	
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information 1. CH674777D ERG1171							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name Bruce Christensen				Signature 		Month Day Year 9/6/13	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name ED RICE				Signature 		Month Day Year 9/6/13	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number:							
18b. Alternate Facility (or Generator) U.S. EPA ID Number							
Facility's Phone:							
18c. Signature of Alternate Facility (or Generator) Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H141		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD041319294	2. Page 1 of 12	3. Emergency Response Phone (800) 463-3718	4. Manifest Tracking Number 007093588 FLE
5. Generator's Name and Mailing Address United Airlines - Bldg 49 United Airlines Bldg #49 SFOMP SF Intern'l Airport San Francisco, CA 94128		Generator's Site Address (if different than mailing address) Maint. Base Bldg. 49 SFOMP San Francisco, CA 94128			
Generator's Phone: (650) 634-4409 ATTN: Tracey Tyree-Small		U.S. EPA ID Number MA0039322250			
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc		U.S. EPA ID Number MA0039322250			
7. Transporter 2 Company Name CLEAN HARBORS		U.S. EPA ID Number MA0039322250			
8. Designated Facility Name and Site Address Clean Harbors San Jose LLC 1021 Berryessa Road San Jose, CA 95133		U.S. EPA ID Number CAD059494310			
Facility's Phone: (408) 441-0962 (435) 884-8100		U.S. EPA ID Number MA0039322250			
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. HA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III	004 DM 0220 G			242 D006 D007 D008 D011
	2.				
	3.				
	4.				
14. Special Handling Instructions and Additional Information 1. CH676062 ERG#171 4X55					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Officer's Printed/Typed Name KATHERINE SCHROEDER		Signature <i>[Signature]</i>		Month Day Year 09/16/13	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:			
Transporter signature (for exports only):					
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name 5225 John R. Fackler		Signature <i>[Signature]</i>		Month Day Year 9/16/13	
Transporter 2 Printed/Typed Name UN1855/11A		Signature <i>[Signature]</i>		Month Day Year 9/16/13	
18. Discrepancy <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
18a. Discrepancy Indication Space					
Manifest Reference Number: U.S. EPA ID Number					
18b. Alternate Facility (or Generator)					
Facility's Phone: Month Day Year					
18c. Signature of Alternate Facility (or Generator)					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1. H142 H040		2.		3.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a					
Printed/Typed Name William Beatty		Signature <i>[Signature]</i>		Month Day Year 10/8/13	

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.



Land Disposal Restriction
Notification Form

Page : 1 of 1

Printed Date : Sep 12, 2013

MANIFEST INFORMATION

Generator : United Airlines - Bldg 49
Address: Maint. Base Bldg. 49 SFOMP
San Francisco, CA 94128

Manifest Tracking Info.

007093588FLE

EPA ID #: CAD041319294

Sales Order No: DJ7038561

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH676062	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code

D006
D007
D008
D011

EPA Waste SubCategory

Toxicity characteristic for Cadmium
Toxicity Characteristic for Chromium
Toxicity Characteristic for Lead
Toxicity Characteristic for Silver

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
ANTIMONY	Y	N	N
ARSENIC	Y	N	N
NICKEL	Y	N	N
TOTAL PCB'S (SUM OF ALL PCB ISOMERS, OR ALL AROCHL	Y	N	N
ZINC	Y	N	N

Certification

Applies to
Manifest Line
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached.

Signature :

[Handwritten Signature]
LEAD MECHANIC

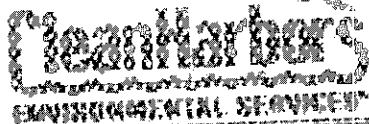
Print Name

KATHERINE S. HENDERSON

Title :

Date :

09/16/13



Land Disposal Restriction
Notification Form

Page: 1 of 1

Printed Date: Sep 12, 2013

MANIFEST INFORMATION

Generator: United Airlines - Bldg 49
Address: Maint. Base Bldg. 49 SFOMP
San Francisco, CA 94128

Manifest Tracking Info.

007045588FLE

Sales Order No: DJ7936581

EPA ID #: CAD041310284

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH076062	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code

D006
D007
D008
D011

EPA Waste SubCategory

Toxicity characteristic for Cadmium
Toxicity Characteristic for Chromium
Toxicity Characteristic for Lead
Toxicity Characteristic for Silver

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
ANTIMONY	Y	N	N
ARSENIC	Y	N	N
NICKEL	Y	N	N
TOTAL PCB'S (SUM OF ALL PCB ISOMERS, OR ALL AROCHL	Y	N	N
ZINC	Y	N	N

Certification

Applies to
Manifest Line
Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1.

Waste analysis data, where available, is attached.

Signature:

Print Name

Title:

Date:

KATHERINE SCHROEDER
09/16/13

LEAD MECHANIC

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

22. Page

23. Manifest Tracking Number

UNIFORM HAZARDOUS WASTE MANIFEST
(Continuation Sheet)

21. Generator ID Number

CAD041319294

3

007093588FLE

24. Generator's Name

United Airlines

U.S. EPA ID Number

MA003932223

25. Transporter Company Name

Clean Harbors

U.S. EPA ID Number

26. Transporter Company Name

27a. HM

27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))

28. Containers

No.

Type

29. Total Quantity

30. Unit Wt./Vol.

31. Waste Codes

GENERATOR

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter Printed/Typed Name

Acknowledgment of Receipt of Materials

F. Keith Gunnells

Signature

F. Keith Gunnells

Month Day Year
10 4 13

34. Transporter Printed/Typed Name

Acknowledgment of Receipt of Materials

Signature

Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Appendix B
Waste Analytical Results



06/26/13

Technical Report for

Cleanharbors-San Jose-Commercial Street

United Airlines - 800 South Airport Boulevard, South San Francisco, CA

J07265475

Accutest Job Number: C28387

Sampling Date: 06/20/13

Report to:

Clean Harbors Environmental Services
1010 Commercial Street
San Jose, CA 95112
myers.kyle@cleanharbors.com

ATTN: Kyle Myers

Total number of pages in report: **15**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'James J. Rhudy'.

James J. Rhudy
Lab Director

Client Service contact: Teresa Morrison 408-588-0200

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

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Section 2: Summary of Hits 4

Section 3: Sample Results 5

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Section 4: Misc. Forms 7

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5.1: Prep QC MP6369: Cd 11



Sample Summary

Cleanharbors-San Jose-Commercial Street

Job No: C28387

United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Project No: J07265475

Sample Number	Collected		Matrix			Client Sample ID
	Date	Time By	Received	Code	Type	
C28387-1T	06/20/13	19:37 KM	06/21/13	AQ	Water	FRAC TANK #1

Summary of Hits

Page 1 of 1

Job Number: C28387
Account: Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA
Collected: 06/20/13

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

C28387-1T FRAC TANK #1

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	FRAC TANK #1	Date Sampled:	06/20/13
Lab Sample ID:	C28387-1T	Date Received:	06/21/13
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	United Airlines - 800 South Airport Boulevard, South San Francisco, CA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Cadmium	< 0.010	D006	1.0	0.010	mg/l	1	06/25/13	06/26/13 RS	SW846 6010B ¹	SW3010A ²

(1) Instrument QC Batch: MA3251
(2) Prep QC Batch: MP6369

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

CLNCAST5053

FEO-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest NC Job #: C C28387	
Client / Reporting Information		Project Information	
Company Name: Clean Harbors		Project Name: United Airlines	
Address: 1010 Commercial St.		Street: 800 S. Airport Blvd.	
City: San Jose State: CA Zip: 95112		City: South San Francisco State: CA	
Project Contact: Kyle Myers		Project #: 507265475	
Phone #: 408 209 2040		EMAIL: myers.kyle@cleanharbors.com	
Sampler's Name: Kyle Myers		Client Purchase Order #	
Accutest Sample ID		Collection	
Sample ID / Field Point / Point of Collection		# of bottles	
Date		Time	
Sampled by		Matrix	
ID		NC01	
NC02		NC03	
NC04		NC05	
NC06		NC07	
NC08		NC09	
NC10		NC11	
NC12		NC13	
NC14		NC15	
NC16		NC17	
NC18		NC19	
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NC706</			



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C28387 Client: CLEAN HARBORS - SAN JOSE, CA Project: UNITED AIRLINES
Date / Time Received: 6/21/2013 Delivery Method: Client Airbill #s: _____
Cooler Temps (Initial/Adjusted): #1: (18.1/17.1): 0

Cooler Security

	Y or N			Y or N	
1. Custody Seals Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cooler Temperature

	Y or N	
1. Temp criteria achieved:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Cooler temp verification:	<u>IR1 Glass;</u>	
3. Cooler media:	<u>No Ice</u>	
4. No. Coolers:	<u>0</u>	

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Samples preserved properly:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Condition of sample:	<u>Intact</u>		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Comments Matrix: Slurry Water

Metals Analysis

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C28387

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6369
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 06/25/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	1.0	.067	.042		
Antimony	0.030	.0035	.0026		
Arsenic	0.050	.0035	.0033		
Barium	1.0	.002	.0018		
Beryllium	0.025	.001	.002		
Boron	0.50	.0045	.0032		
Cadmium	0.010	.001	.00075	0.00050	<0.010
Calcium	25	.036	.061		
Chromium	0.050	.0015	.0021		
Cobalt	0.025	.001	.0015		
Copper	0.050	.006	.015		
Iron	1.0	.032	.062		
Lead	0.050	.0035	.0043		
Magnesium	25	.14	.18		
Manganese	0.075	.0005	.0063		
Molybdenum	0.10	.001	.0011		
Nickel	0.025	.001	.0006		
Potassium	50	.09	.22		
Selenium	0.050	.009	.011		
Silicon	0.50	.006	.035		
Silver	0.025	.0015	.0024		
Sodium	50	.074	.066		
Strontium	0.050	.001	.0012		
Thallium	0.050	.0025	.0027		
Tin	0.25	.001	.0035		
Titanium	0.050	.002	.0017		
Vanadium	0.050	.0015	.0015		
Zinc	0.10	.0015	.021		

Associated samples MP6369: C28387-1T

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28387

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6369
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 06/25/13

Metal	C28387-1T Original MS		Spikelot MPIR4A	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium	0.0035	2.6	2.5	103.9	75-125
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP6369: C28387-1T

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28387

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6369
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 06/25/13

Metal	C28387-1T Original	MSD	Spikelot MPIR4A	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium	0.0035	2.6	2.5	103.9	0.0	20
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP6369: C28387-1T

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C28387

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6369
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 06/25/13

Metal	BSP Result	Spikelot MPIR4A	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium	2.5	2.5	100.0	80-120
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP6369: C28387-1T

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C28387

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6369
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/25/13

Metal	C28387-1T		QC	
	Original	SDL 1:5	%DIF	Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium	0.700	0.00	100.0(a)	0-10
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP6369: C28387-1T

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



06/07/13

Technical Report for

Cleanharbors-San Jose-Commercial Street

United Airlines - 800 South Airport Boulevard, South San Francisco, CA

PO#:J05251345

Accutest Job Number: C27966

Sampling Date: 05/30/13

Report to:

Clean Harbors Environmental Services
1010 Commercial Street
San Jose, CA 95112
myers.kyle@cleanharbors.com

ATTN: Kyle Myers

Total number of pages in report: **25**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'James J. Rhudy'.

James J. Rhudy
Lab Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

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Sample Summary

Cleanharbors-San Jose-Commercial Street

Job No: C27966

United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Project No: PO#:J05251345

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C27966-1	05/30/13	00:00 KM	05/31/13	AQ	Water	FT1/FRAC TANK
C27966-2	05/30/13	00:00 KM	05/31/13	AQ	Water	FT2/FRAC TANK

Summary of Hits

Page 1 of 1

Job Number: C27966
Account: Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA
Collected: 05/30/13

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

C27966-1 FT1/FAC TANK

Aroclor 1260 ^a	0.14	0.12	0.036	ug/l	SW846 8082
Antimony	69.8	6.0		ug/l	SW846 6010B
Arsenic	11.3	10		ug/l	SW846 6010B
Barium	346	200		ug/l	SW846 6010B
Cadmium	1360	2.0		ug/l	SW846 6010B
Chromium	3980	10		ug/l	SW846 6010B
Cobalt	98.9	5.0		ug/l	SW846 6010B
Copper	6730	10		ug/l	SW846 6010B
Lead	673	10		ug/l	SW846 6010B
Mercury	2.3	0.20		ug/l	SW846 7470A
Molybdenum	502	20		ug/l	SW846 6010B
Nickel	1020	5.0		ug/l	SW846 6010B
Silver	176	5.0		ug/l	SW846 6010B
Vanadium	24.4	10		ug/l	SW846 6010B
Zinc	2110	20		ug/l	SW846 6010B

C27966-2 FT2/FAC TANK

Aroclor 1260	0.050 J	0.12	0.036	ug/l	SW846 8082
Antimony	62.3	6.0		ug/l	SW846 6010B
Arsenic	11.1	10		ug/l	SW846 6010B
Barium	348	200		ug/l	SW846 6010B
Cadmium	1360	2.0		ug/l	SW846 6010B
Chromium	3980	10		ug/l	SW846 6010B
Cobalt	99.7	5.0		ug/l	SW846 6010B
Copper	6780	10		ug/l	SW846 6010B
Lead	687	10		ug/l	SW846 6010B
Mercury	2.4	0.20		ug/l	SW846 7470A
Molybdenum	462	20		ug/l	SW846 6010B
Nickel	1030	5.0		ug/l	SW846 6010B
Silver	175	5.0		ug/l	SW846 6010B
Vanadium	24.2	10		ug/l	SW846 6010B
Zinc	2130	20		ug/l	SW846 6010B

(a) Quantitation between primary and confirmation differed by > 40% possibly due to matrix interference. Lower value reported.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	FT1/FRAC TANK	Date Sampled:	05/30/13
Lab Sample ID:	C27966-1	Date Received:	05/31/13
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	United Airlines - 800 South Airport Boulevard, South San Francisco, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO367967.D	1	06/03/13	RV	06/03/13	OP8073	GOO1164
Run #2							

	Initial Volume	Final Volume
Run #1	840 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.12	0.024	ug/l	
11104-28-2	Aroclor 1221	ND	0.12	0.060	ug/l	
11141-16-5	Aroclor 1232	ND	0.12	0.060	ug/l	
53469-21-9	Aroclor 1242	ND	0.12	0.060	ug/l	
12672-29-6	Aroclor 1248	ND	0.12	0.060	ug/l	
11097-69-1	Aroclor 1254	ND	0.12	0.060	ug/l	
11096-82-5	Aroclor 1260 ^a	0.14	0.12	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	31%		28-116%
877-09-8	Tetrachloro-m-xylene	23% ^b		28-116%
2051-24-3	Decachlorobiphenyl	23% ^b		36-121%
2051-24-3	Decachlorobiphenyl	-1% ^c		36-121%

(a) Quantitation between primary and confirmation differed by > 40% possibly due to matrix interference. Lower value reported.

(b) Surrogate outside control limits due to matrix interference. Emulsion formed during extraction process.

(c) Surrogate outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: FT1/FRAC TANK**Lab Sample ID:** C27966-1**Matrix:** AQ - Water**Date Sampled:** 05/30/13**Date Received:** 05/31/13**Percent Solids:** n/a**Project:** United Airlines - 800 South Airport Boulevard, South San Francisco, CA**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	69.8	6.0	ug/l	1	06/04/13	06/06/13 RS	SW846 6010B ²	SW3010A ⁴
Arsenic	11.3	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Barium	346	200	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Beryllium	< 5.0	5.0	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Cadmium	1360	2.0	ug/l	1	06/04/13	06/06/13 RS	SW846 6010B ²	SW3010A ⁴
Chromium	3980	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Cobalt	98.9	5.0	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Copper	6730	10	ug/l	1	06/04/13	06/06/13 RS	SW846 6010B ²	SW3010A ⁴
Lead	673	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Mercury	2.3	0.20	ug/l	1	06/03/13	06/04/13 RW	SW846 7470A ¹	EPA 245.1/SW7470A ³
Molybdenum	502	20	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Nickel	1020	5.0	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Selenium	< 10	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Silver	176	5.0	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Thallium	< 10	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Vanadium	24.4	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Zinc	2110	20	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴

(1) Instrument QC Batch: MA3202

(2) Instrument QC Batch: MA3204

(3) Prep QC Batch: MP6283

(4) Prep QC Batch: MP6287

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FT2/FRAC TANK	Date Sampled:	05/30/13
Lab Sample ID:	C27966-2	Date Received:	05/31/13
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	United Airlines - 800 South Airport Boulevard, South San Francisco, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO367968.D	1	06/03/13	RV	06/03/13	OP8073	GOO1164
Run #2							

	Initial Volume	Final Volume
Run #1	840 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.12	0.024	ug/l	
11104-28-2	Aroclor 1221	ND	0.12	0.060	ug/l	
11141-16-5	Aroclor 1232	ND	0.12	0.060	ug/l	
53469-21-9	Aroclor 1242	ND	0.12	0.060	ug/l	
12672-29-6	Aroclor 1248	ND	0.12	0.060	ug/l	
11097-69-1	Aroclor 1254	ND	0.12	0.060	ug/l	
11096-82-5	Aroclor 1260	0.050	0.12	0.036	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	11% ^a		28-116%
877-09-8	Tetrachloro-m-xylene	9% ^a		28-116%
2051-24-3	Decachlorobiphenyl	22% ^a		36-121%
2051-24-3	Decachlorobiphenyl	180% ^b		36-121%

(a) Surrogate outside control limits due to matrix interference. Emulsion formed during extraction process.

(b) Surrogate outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: FT2/FRAC TANK

Lab Sample ID: C27966-2

Date Sampled: 05/30/13

Matrix: AQ - Water

Date Received: 05/31/13

Percent Solids: n/a

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	62.3	6.0	ug/l	1	06/04/13	06/06/13 RS	SW846 6010B ²	SW3010A ⁴
Arsenic	11.1	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Barium	348	200	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Beryllium	< 5.0	5.0	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Cadmium	1360	2.0	ug/l	1	06/04/13	06/06/13 RS	SW846 6010B ²	SW3010A ⁴
Chromium	3980	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Cobalt	99.7	5.0	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Copper	6780	10	ug/l	1	06/04/13	06/06/13 RS	SW846 6010B ²	SW3010A ⁴
Lead	687	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Mercury	2.4	0.20	ug/l	1	06/03/13	06/04/13 RW	SW846 7470A ¹	EPA 245.1/SW7470A ³
Molybdenum	462	20	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Nickel	1030	5.0	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Selenium	< 10	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Silver	175	5.0	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Thallium	< 10	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Vanadium	24.2	10	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴
Zinc	2130	20	ug/l	1	06/04/13	06/05/13 RS	SW846 6010B ²	SW3010A ⁴

(1) Instrument QC Batch: MA3202

(2) Instrument QC Batch: MA3204

(3) Prep QC Batch: MP6283

(4) Prep QC Batch: MP6287

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

"CLNCAST 5053"

FED-EX Tracking #

Bottle Order Control #	
------------------------	--

Accutest Quote #	
------------------	--

Accutest NC Job #: C

027966

4.1

Page 1 of 2



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C27966 Client: CLEAN HARBORS - SAN JOSE, CA Project: ERM/UAL
Date / Time Received: 5/31/2013 Delivery Method: Client Airbill #s:
Cooler Temps (Initial/Adjusted): #1: (24.1/23.1): 0

Cooler Security

	Y or N			Y or N	
1. Custody Seals Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cooler Temperature

	Y or N	
1. Temp criteria achieved:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Cooler temp verification:	IR Gun	
3. Cooler media:	No Ice	
4. No. Coolers:	0	

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Samples preserved properly:	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
4. VOCs headspace free:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

Recv'd 1 x 950ml Amber Glass N/P per sample.
As per client(walk in):
Sub-sampled ~200ml Aliquot from Liter Amber N/P into a HNO3-preserved bottle for CAM17 Metals
<1-950ml Volume remaining for PCBs (8082)

As per client, OK to raise the RL for PCBs, EK, 05/31/13

GC Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: C27966

Account: CLNCASJ Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8073-MB	PP030876.D	1	06/06/13	RV	06/03/13	OP8073	GPP1009

The QC reported here applies to the following samples:

Method: SW846 8082

C27966-1, C27966-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.10	0.020	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	0.050	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	0.050	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	0.050	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	0.050	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	0.050	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	0.030	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	84% 28-116%
877-09-8	Tetrachloro-m-xylene	76% 28-116%
2051-24-3	Decachlorobiphenyl	83% 36-121%
2051-24-3	Decachlorobiphenyl	87% 36-121%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C27966

Account: CLNCASJ Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8073-BS	PP030877.D	1	06/06/13	RV	06/03/13	OP8073	GPP1009
OP8073-BSD	PP030878.D	1	06/06/13	RV	06/03/13	OP8073	GPP1009

The QC reported here applies to the following samples:

Method: SW846 8082

C27966-1, C27966-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	0.4	0.36	90	0.33	83	9	52-110/20
11096-82-5	Aroclor 1260	0.4	0.40	100	0.38	95	5	50-121/19

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	81%	73%	28-116%
877-09-8	Tetrachloro-m-xylene	79%	72%	28-116%
2051-24-3	Decachlorobiphenyl	84%	76%	36-121%
2051-24-3	Decachlorobiphenyl	91%	83%	36-121%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C27966

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6283
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 06/03/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.0042	.08	0.0069	<0.20

Associated samples MP6283: C27966-1, C27966-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C27966

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6283

Methods: SW846 7470A

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

06/03/13

Metal	C27954-1		Spikelot		QC
	Original	MS	HGPWS1	% Rec	Limits
Mercury	0.33	5.2	4	121.8	75-125

Associated samples MP6283: C27966-1, C27966-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C27966

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6283

Methods: SW846 7470A

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

06/03/13

Metal	C27954-1 Original	MSD	Spikelot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.33	5.3	4	124.3	1.9	30

Associated samples MP6283: C27966-1, C27966-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C27966

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6283

Methods: SW846 7470A

Matrix Type: AQUEOUS

Units: ug/l

Prep Date: 06/03/13

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
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Mercury	2.0	2	100.0	85-115
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Associated samples MP6283: C27966-1, C27966-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

6.1.3

6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C27966

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6287
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/04/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	13	8.5		
Antimony	6.0	.7	.51	0.10	<6.0
Arsenic	10	.7	.65	2.1	<10
Barium	200	.4	.35	0.80	<200
Beryllium	5.0	.2	.4	-0.20	<5.0
Bismuth	20		2.9		
Boron	100	.9	.64		
Cadmium	2.0	.2	.15	-0.30	<2.0
Calcium	5000	7.1	12		
Chromium	10	.3	.41	0.20	<10
Cobalt	5.0	.2	.3	-0.10	<5.0
Copper	10	1.2	3	1.0	<10
Iron	200	6.4	12		
Lead	10	.7	.85	0.30	<10
Lithium	50		2		
Magnesium	5000	27	36		
Manganese	15	.1	1.3		
Molybdenum	20	.2	.22	-0.10	<20
Nickel	5.0	.2	.12	0.10	<5.0
Potassium	10000	18	44		
Selenium	10	1.8	2.2	0.50	<10
Silicon	100	1.2	6.9		
Silver	5.0	.3	.47	0.30	<5.0
Sodium	10000	15	13		
Strontium	10	.2	.24		
Thallium	10	.5	.54	-1.5	<10
Tin	50	.2	.7		
Titanium	10	.4	.34		
Vanadium	10	.3	.3	-0.40	<10
Zinc	20	.3	4.2	2.6	<20

Associated samples MP6287: C27966-1, C27966-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C27966

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6287
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/04/13

Metal	C27962-1 Original MS		Spikelot MPIR4A	% Rec	QC Limits
Aluminum					
Antimony	0.0	504	500	100.8	75-125
Arsenic	5.7	510	500	100.9	75-125
Barium	94.2	600	500	101.2	75-125
Beryllium	0.0	497	500	99.4	75-125
Bismuth					
Boron					
Cadmium	0.0	498	500	99.6	75-125
Calcium					
Chromium	10.3	520	500	101.9	75-125
Cobalt	0.0	506	500	101.2	75-125
Copper	1.4	514	500	102.5	75-125
Iron					
Lead	0.0	499	500	99.8	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum	19.5	518	500	99.7	75-125
Nickel	0.0	494	500	98.8	75-125
Potassium					
Selenium	3.9	512	500	101.6	75-125
Silicon					
Silver	0.0	495	500	99.0	75-125
Sodium					
Strontium					
Thallium	0.0	516	500	103.2	75-125
Tin					
Titanium					
Vanadium	4.9	517	500	102.4	75-125
Zinc	35.5	544	500	101.7	75-125

Associated samples MP6287: C27966-1, C27966-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C27966

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6287
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/04/13

Metal	C27962-1 Original	MSD	Spikelot MPIR4A	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.0	500	500	100.0	0.8	20
Arsenic	5.7	505	500	99.9	1.0	20
Barium	94.2	594	500	100.0	1.0	20
Beryllium	0.0	490	500	98.0	1.4	20
Bismuth						
Boron						
Cadmium	0.0	492	500	98.4	1.2	20
Calcium						
Chromium	10.3	514	500	100.7	1.2	20
Cobalt	0.0	498	500	99.6	1.6	20
Copper	1.4	510	500	101.7	0.8	20
Iron						
Lead	0.0	494	500	98.8	1.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum	19.5	511	500	98.3	1.4	20
Nickel	0.0	487	500	97.4	1.4	20
Potassium						
Selenium	3.9	507	500	100.6	1.0	20
Silicon						
Silver	0.0	493	500	98.6	0.4	20
Sodium						
Strontium						
Thallium	0.0	509	500	101.8	1.4	20
Tin						
Titanium						
Vanadium	4.9	510	500	101.0	1.4	20
Zinc	35.5	537	500	100.3	1.3	20

Associated samples MP6287: C27966-1, C27966-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C27966

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
 Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6287
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 06/04/13

Metal	BSP Result	Spikelot MPIR4A	% Rec	QC Limits
Aluminum				
Antimony	492	500	98.4	80-120
Arsenic	475	500	95.0	80-120
Barium	500	500	100.0	80-120
Beryllium	486	500	97.2	80-120
Bismuth				
Boron				
Cadmium	486	500	97.2	80-120
Calcium				
Chromium	491	500	98.2	80-120
Cobalt	505	500	101.0	80-120
Copper	513	500	102.6	80-120
Iron				
Lead	468	500	93.6	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum	487	500	97.4	80-120
Nickel	463	500	92.6	80-120
Potassium				
Selenium	484	500	96.8	80-120
Silicon				
Silver	485	500	97.0	80-120
Sodium				
Strontium				
Thallium	504	500	100.8	80-120
Tin				
Titanium				
Vanadium	490	500	98.0	80-120
Zinc	493	500	98.6	80-120

Associated samples MP6287: C27966-1, C27966-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C27966

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6287
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/04/13

Metal	C27962-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.00	7.50	NC	0-10
Arsenic	5.70	14.4	152.6 (a)	0-10
Barium	94.2	98.9	5.0	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	10.3	11.6	12.6 (a)	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	1.40	0.00	100.0 (a)	0-10
Iron				
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum	19.5	17.9	8.2	0-10
Nickel	0.00	0.00	NC	0-10
Potassium				
Selenium	3.90	0.00	100.0 (a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	4.90	4.20	14.3 (a)	0-10
Zinc	35.5	38.4	8.2	0-10

Associated samples MP6287: C27966-1, C27966-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



06/18/13

Technical Report for

Cleanharbors-San Jose-Commercial Street

United Airlines - 800 South Airport Boulevard, South San Francisco, CA

J05251345

Accutest Job Number: C28307

Sampling Date: 06/14/13

Report to:

Clean Harbors Environmental Services
1010 Commercial Street
San Jose, CA 95112
myers.kyle@cleanharbors.com

ATTN: Kyle Myers

Total number of pages in report: **24**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'James J. Rhudy'.

James J. Rhudy
Lab Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

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Test results relate only to samples analyzed.

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Sample Summary

Cleanharbors-San Jose-Commercial Street

Job No: C28307

United Airlines - 800 South Airport Boulevard, South San Francisco, CA
Project No: J05251345

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C28307-1	06/14/13	20:23 KM	06/17/13	AQ	Water	FRAC TANK 2,#1
C28307-2	06/14/13	20:27 KM	06/17/13	AQ	Water	FRAC TANK 2,#2
C28307-3	06/14/13	20:34 KM	06/17/13	AQ	Water	FRAC TANK 2,#3
C28307-4	06/14/13	20:39 KM	06/17/13	AQ	Water	FRAC TANK 2,#4
C28307-5	06/14/13	21:12 KM	06/17/13	AQ	Water	FRAC TANK 2,#5

Summary of Hits

Job Number: C28307
Account: Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA
Collected: 06/14/13

Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
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C28307-1 FRAC TANK 2,#1

Antimony	69.5	6.0	ug/l	SW846 6010B
Arsenic	12.8	10	ug/l	SW846 6010B
Cadmium	221	2.0	ug/l	SW846 6010B
Chromium	624	10	ug/l	SW846 6010B
Cobalt	30.5	5.0	ug/l	SW846 6010B
Copper	6600	10	ug/l	SW846 6010B
Lead	906	10	ug/l	SW846 6010B
Mercury	0.61	0.20	ug/l	SW846 7470A
Molybdenum	596	20	ug/l	SW846 6010B
Nickel	352	5.0	ug/l	SW846 6010B
Silver	77.6	5.0	ug/l	SW846 6010B
Vanadium	38.6	10	ug/l	SW846 6010B
Zinc	565	20	ug/l	SW846 6010B

C28307-2 FRAC TANK 2,#2

Antimony	69.4	6.0	ug/l	SW846 6010B
Arsenic	12.4	10	ug/l	SW846 6010B
Cadmium	223	2.0	ug/l	SW846 6010B
Chromium	632	10	ug/l	SW846 6010B
Cobalt	30.8	5.0	ug/l	SW846 6010B
Copper	6960	10	ug/l	SW846 6010B
Lead	952	10	ug/l	SW846 6010B
Mercury	0.64	0.20	ug/l	SW846 7470A
Molybdenum	595	20	ug/l	SW846 6010B
Nickel	373	5.0	ug/l	SW846 6010B
Silver	79.7	5.0	ug/l	SW846 6010B
Vanadium	38.2	10	ug/l	SW846 6010B
Zinc	608	20	ug/l	SW846 6010B

C28307-3 FRAC TANK 2,#3

Antimony	73.9	6.0	ug/l	SW846 6010B
Arsenic	11.1	10	ug/l	SW846 6010B
Cadmium	217	2.0	ug/l	SW846 6010B
Chromium	498	10	ug/l	SW846 6010B
Cobalt	23.4	5.0	ug/l	SW846 6010B
Copper	5080	10	ug/l	SW846 6010B
Lead	828	10	ug/l	SW846 6010B
Mercury	0.48	0.20	ug/l	SW846 7470A
Molybdenum	531	20	ug/l	SW846 6010B
Nickel	280	5.0	ug/l	SW846 6010B
Silver	48.4	5.0	ug/l	SW846 6010B

Summary of Hits

Page 2 of 2

Job Number: C28307
Account: Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA
Collected: 06/14/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
--------------------------	------------------	-----------------	----	-----	-------	--------

Vanadium		29.0	10		ug/l	SW846 6010B
Zinc		499	20		ug/l	SW846 6010B

C28307-4 FRAC TANK 2,#4

Antimony		79.7	6.0		ug/l	SW846 6010B
Arsenic		11.7	10		ug/l	SW846 6010B
Cadmium		235	2.0		ug/l	SW846 6010B
Chromium		538	10		ug/l	SW846 6010B
Cobalt		24.8	5.0		ug/l	SW846 6010B
Copper		5510	10		ug/l	SW846 6010B
Lead		880	10		ug/l	SW846 6010B
Mercury		0.52	0.20		ug/l	SW846 7470A
Molybdenum		569	20		ug/l	SW846 6010B
Nickel		296	5.0		ug/l	SW846 6010B
Silver		52.9	5.0		ug/l	SW846 6010B
Vanadium		31.0	10		ug/l	SW846 6010B
Zinc		522	20		ug/l	SW846 6010B

C28307-5 FRAC TANK 2,#5

Aroclor 1254 ^a		2.2	1.9	0.94	ug/l	SW846 8082
Aroclor 1260 ^b		1.2 J	1.9	0.57	ug/l	SW846 8082

(a) Estimated value due to the presence of multiple overlapping Aroclor patterns.

(b) Quantitation between primary and confirmation differed by > 40% possibly due to matrix interference. Lower value reported.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: FRAC TANK 2,#1**Lab Sample ID:** C28307-1**Matrix:** AQ - Water**Date Sampled:** 06/14/13**Date Received:** 06/17/13**Percent Solids:** n/a**Project:** United Airlines - 800 South Airport Boulevard, South San Francisco, CA**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	69.5	6.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Arsenic	12.8	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Barium	< 200	200	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Beryllium	< 5.0	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Cadmium	221	2.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Chromium	624	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Cobalt	30.5	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Copper	6600	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Lead	906	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Mercury	0.61	0.20	ug/l	1	06/18/13	06/18/13 DQ	SW846 7470A ²	EPA 245.1/SW7470A ⁴
Molybdenum	596	20	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Nickel	352	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Selenium	< 10	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Silver	77.6	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Thallium	< 10	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Vanadium	38.6	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Zinc	565	20	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³

(1) Instrument QC Batch: MA3230

(2) Instrument QC Batch: MA3231

(3) Prep QC Batch: MP6335

(4) Prep QC Batch: MP6340

RL = Reporting Limit

Report of Analysis

Client Sample ID: FRAC TANK 2,#2**Lab Sample ID:** C28307-2**Date Sampled:** 06/14/13**Matrix:** AQ - Water**Date Received:** 06/17/13**Percent Solids:** n/a**Project:** United Airlines - 800 South Airport Boulevard, South San Francisco, CA**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	69.4	6.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Arsenic	12.4	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Barium	< 200	200	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Beryllium	< 5.0	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Cadmium	223	2.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Chromium	632	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Cobalt	30.8	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Copper	6960	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Lead	952	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Mercury	0.64	0.20	ug/l	1	06/18/13	06/18/13 DQ	SW846 7470A ²	EPA 245.1/SW7470A ⁴
Molybdenum	595	20	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Nickel	373	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Selenium	< 10	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Silver	79.7	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Thallium	< 10	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Vanadium	38.2	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Zinc	608	20	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³

(1) Instrument QC Batch: MA3230

(2) Instrument QC Batch: MA3231

(3) Prep QC Batch: MP6335

(4) Prep QC Batch: MP6340

RL = Reporting Limit

Report of Analysis

Client Sample ID: FRAC TANK 2,#3**Lab Sample ID:** C28307-3**Date Sampled:** 06/14/13**Matrix:** AQ - Water**Date Received:** 06/17/13**Percent Solids:** n/a**Project:** United Airlines - 800 South Airport Boulevard, South San Francisco, CA**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	73.9	6.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Arsenic	11.1	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Barium	< 200	200	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Beryllium	< 5.0	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Cadmium	217	2.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Chromium	498	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Cobalt	23.4	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Copper	5080	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Lead	828	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Mercury	0.48	0.20	ug/l	1	06/18/13	06/18/13 DQ	SW846 7470A ²	EPA 245.1/SW7470A ⁴
Molybdenum	531	20	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Nickel	280	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Selenium	< 10	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Silver	48.4	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Thallium	< 10	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Vanadium	29.0	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Zinc	499	20	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³

(1) Instrument QC Batch: MA3230

(2) Instrument QC Batch: MA3231

(3) Prep QC Batch: MP6335

(4) Prep QC Batch: MP6340

RL = Reporting Limit

Report of Analysis

Client Sample ID: FRAC TANK 2, #4**Lab Sample ID:** C28307-4**Date Sampled:** 06/14/13**Matrix:** AQ - Water**Date Received:** 06/17/13**Percent Solids:** n/a**Project:** United Airlines - 800 South Airport Boulevard, South San Francisco, CA**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	79.7	6.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Arsenic	11.7	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Barium	< 200	200	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Beryllium	< 5.0	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Cadmium	235	2.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Chromium	538	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Cobalt	24.8	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Copper	5510	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Lead	880	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Mercury	0.52	0.20	ug/l	1	06/18/13	06/18/13 DQ	SW846 7470A ²	EPA 245.1/SW7470A ⁴
Molybdenum	569	20	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Nickel	296	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Selenium	< 10	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Silver	52.9	5.0	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Thallium	< 10	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Vanadium	31.0	10	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³
Zinc	522	20	ug/l	1	06/17/13	06/18/13 RS	SW846 6010B ¹	SW3010A ³

(1) Instrument QC Batch: MA3230

(2) Instrument QC Batch: MA3231

(3) Prep QC Batch: MP6335

(4) Prep QC Batch: MP6340

RL = Reporting Limit

Report of Analysis

Client Sample ID: FRAC TANK 2,#5

Lab Sample ID: C28307-5

Date Sampled: 06/14/13

Matrix: AQ - Water

Date Received: 06/17/13

Method: SW846 8082 SW846 3510C

Percent Solids: n/a

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO368348.D	20	06/17/13	RV	06/17/13	OP8171	GOO1175
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	1.9	0.38	ug/l	
11104-28-2	Aroclor 1221	ND	1.9	0.94	ug/l	
11141-16-5	Aroclor 1232	ND	1.9	0.94	ug/l	
53469-21-9	Aroclor 1242	ND	1.9	0.94	ug/l	
12672-29-6	Aroclor 1248	ND	1.9	0.94	ug/l	
11097-69-1	Aroclor 1254 ^a	2.2	1.9	0.94	ug/l	
11096-82-5	Aroclor 1260 ^b	1.2	1.9	0.57	ug/l	J
11100-14-4	Aroclor 1268	ND	1.9	0.94	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	62%		28-116%
877-09-8	Tetrachloro-m-xylene	52%		28-116%
2051-24-3	Decachlorobiphenyl	3534% ^c		36-121%
2051-24-3	Decachlorobiphenyl	2150% ^c		36-121%

(a) Estimated value due to the presence of multiple overlapping Aroclor patterns.

(b) Quantitation between primary and confirmation differed by > 40% possibly due to matrix interference. Lower value reported.

(c) Outside control limits due to dilution and matrix interference.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

C283075053

FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest NC Job #: C C28307	
Client / Reporting Information		Project Information	
Company Name: Clean Harbors		Project Name: United Airlines	
Address: 1010 Commercial St		Street: 800 S. Airport Blvd.	
City: San Jose State: CA Zip: 95112		City: South San Francisco State: CA	
Project Contact: Kyle Myers		Project #: JO5251345	
Phone #: 408 209 2040		EMAIL: myers.kyle@cleanharbors.com	
Sampler's Name: Kyle Myers		Client Purchase Order #: JO5251345	
Accutest Sample ID		Collection	
Sample ID / Field Point / Point of Collection		Date Time Sampled by Matrix # of bottles	
1 Frac tank 2, #1		6/14/13 2023 KM lig 1	
2 " " " #2		6/14/13 2027 KM lig 1	
3 " " " #3		6/14/13 2034 KM lig 1	
4 " " " #4		6/14/13 2039 KM lig 1	
5 " " " #5		6/14/13 2112 KM lig 1	
Turnaround Time (Business days)		Data Deliverable Information	
Approved By / Date:		Comments / Remarks	
<input type="checkbox"/> Standard TAT <input type="checkbox"/> 3 Day (applicable markup) <input type="checkbox"/> 2 Day (applicable markup) <input checked="" type="checkbox"/> 1 Day (applicable markup)		<input type="checkbox"/> Commercial "B" - Results with QC summaries <input type="checkbox"/> REDT1 - Level 3 data package <input type="checkbox"/> FULT1 - Level 4 data package <input type="checkbox"/> EDF for Geotracker <input type="checkbox"/> EDD Format Provide EDF Global ID _____ Provide EDF Logcode: _____	
Emergency T/A data available VIA Lablink		<div style="font-size: 48pt; font-weight: bold; text-align: center;">1 DAY</div>	
Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler:	Date Time:	Received By:	Date Time:
1 Kyle Myers <i>KMyers</i>	6/17/13 11:07am	1 <i>Le. B...</i>	
Relinquished by:	Date Time:	Received By:	Date Time:
3		3	
Relinquished by:	Date Time:	Received By:	Date Time:
5		5	
Custody Seal #	On Ice Y <input checked="" type="checkbox"/>	Number of coolers	Cooler Temp.
		0	21.7°C

C28307: Chain of Custody

Page 1 of 2



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C28307 Client: CLEAN HARBORS - San Jose, CA Project: UNITED AIRLINES - SFO, CA
Date / Time Received: 6/17/2013 Delivery Method: Client Airbill #s:
Cooler Temps (Initial/Adjusted): #1: (21.7/21.7): 0

Cooler Security

	Y or N			Y or N	
1. Custody Seals Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cooler Temperature

	Y or N	
1. Temp criteria achieved:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Cooler temp verification:	IR Gun	
3. Cooler media:	No Ice	
4. No. Coolers:	0	

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. VOCs headspace free:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Comments

Accutest Laboratories
V: 408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www.accutest.com

C28307: Chain of Custody
Page 2 of 2

GC Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: C28307

Account: CLNCASJ Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8171-MB	OO368354.D 1		06/18/13	RV	06/17/13	OP8171	GOO1175

The QC reported here applies to the following samples:

Method: SW846 8082

C28307-5

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.10	0.020	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	0.050	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	0.050	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	0.050	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	0.050	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	0.050	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	0.030	ug/l	
11100-14-4	Aroclor 1268	ND	0.10	0.050	ug/l	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	91%	28-116%
877-09-8	Tetrachloro-m-xylene	82%	28-116%
2051-24-3	Decachlorobiphenyl	87%	36-121%
2051-24-3	Decachlorobiphenyl	80%	36-121%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C28307

Account: CLNCASJ Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8171-BS	OO368355.D 1		06/18/13	RV	06/17/13	OP8171	GOO1175
OP8171-BSD	OO368356.D 1		06/18/13	RV	06/17/13	OP8171	GOO1175

The QC reported here applies to the following samples:

Method: SW846 8082

C28307-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	0.4	0.35	88	0.37	93	6	52-110/20
11096-82-5	Aroclor 1260	0.4	0.40	100	0.40	100	0	50-121/19

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	83%	85%	28-116%
877-09-8	Tetrachloro-m-xylene	75%	78%	28-116%
2051-24-3	Decachlorobiphenyl	82%	82%	36-121%
2051-24-3	Decachlorobiphenyl	76%	76%	36-121%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C28307

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6335
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/17/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	13	8.5		
Antimony	6.0	.7	.51	-0.40	<6.0
Arsenic	10	.7	.65	0.20	<10
Barium	200	.4	.35	-0.10	<200
Beryllium	5.0	.2	.4	0.0	<5.0
Bismuth	20		2.9		
Boron	100	.9	.64		
Cadmium	2.0	.2	.15	-0.10	<2.0
Calcium	5000	7.1	12		
Chromium	10	.3	.41	0.10	<10
Cobalt	5.0	.2	.3	-0.20	<5.0
Copper	10	1.2	3	-1.2	<10
Iron	200	6.4	12		
Lead	10	.7	.85	0.30	<10
Lithium	50		2		
Magnesium	5000	27	36		
Manganese	15	.1	1.3		
Molybdenum	20	.2	.22	0.20	<20
Nickel	5.0	.2	.12	-0.10	<5.0
Potassium	10000	18	44		
Selenium	10	1.8	2.2	0.40	<10
Silicon	100	1.2	6.9		
Silver	5.0	.3	.47	0.40	<5.0
Strontium	10	.2	.24		
Thallium	10	.5	.54	-0.90	<10
Tin	50	.2	.7		
Titanium	10	.4	.34		
Vanadium	10	.3	.3	-0.20	<10
Zinc	20	.3	4.2	-1.0	<20

Associated samples MP6335: C28307-1, C28307-2, C28307-3, C28307-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C28307

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6335

Methods: SW846 6010B

Matrix Type: AQUEOUS

Units: ug/l

Prep Date: 06/17/13

Metal	BSP Result	Spikelot MPIR4	% Rec	QC Limits
Aluminum				
Antimony	521	500	104.2	80-120
Arsenic	500	500	100.0	80-120
Barium	503	500	100.6	80-120
Beryllium	514	500	102.8	80-120
Bismuth				
Boron				
Cadmium	509	500	101.8	80-120
Calcium				
Chromium	529	500	105.8	80-120
Cobalt	528	500	105.6	80-120
Copper	522	500	104.4	80-120
Iron	anr			
Lead	503	500	100.6	80-120
Lithium				
Magnesium				
Manganese	anr			
Molybdenum	512	500	102.4	80-120
Nickel	494	500	98.8	80-120
Potassium				
Selenium	504	500	100.8	80-120
Silicon				
Silver	495	500	99.0	80-120
Strontium				
Thallium	522	500	104.4	80-120
Tin				
Titanium				
Vanadium	501	500	100.2	80-120
Zinc	519	500	103.8	80-120

Associated samples MP6335: C28307-1, C28307-2, C28307-3, C28307-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C28307

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6340
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 06/18/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.02	.08	0.023	<0.20

Associated samples MP6340: C28307-1, C28307-2, C28307-3, C28307-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28307

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6340

Methods: SW846 7470A

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

06/18/13

Metal	C28307-1 Original	MSD	Spikelot HGPWS1	% Rec	MSD RPD	QC Limit
-------	----------------------	-----	--------------------	-------	------------	-------------

Mercury	0.61	4.3	4	92.3	0.0	30
---------	------	-----	---	------	-----	----

Associated samples MP6340: C28307-1, C28307-2, C28307-3, C28307-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28307

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6340

Methods: SW846 7470A

Matrix Type: AQUEOUS

Units: ug/l

Prep Date: 06/18/13

Metal	C28307-1		Spikelot		QC
	Original	MS	HGPWS1	% Rec	Limits

Mercury	0.61	4.3	4	92.3	75-125
---------	------	-----	---	------	--------

Associated samples MP6340: C28307-1, C28307-2, C28307-3, C28307-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C28307

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6340

Methods: SW846 7470A

Matrix Type: AQUEOUS

Units: ug/l

Prep Date: 06/18/13

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
-------	---------------	--------------------	-------	--------------

Mercury	1.9	2	95.0	85-115
---------	-----	---	------	--------

Associated samples MP6340: C28307-1, C28307-2, C28307-3, C28307-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

6.2.3

6



07/03/13

Technical Report for

Cleanharbors-San Jose-Commercial Street

United Airlines - 800 South Airport Boulevard, South San Francisco, CA

J07265475

Accutest Job Number: C28504

Sampling Date: 06/26/13

Report to:

Clean Harbors Environmental Services
1010 Commercial Street
San Jose, CA 95112
myers.kyle@cleanharbors.com

ATTN: Kyle Myers

Total number of pages in report: **32**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'James J. Rhudy'.

James J. Rhudy
Lab Director

Client Service contact: Teresa Morrison 408-588-0200

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

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Test results relate only to samples analyzed.

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Sample Summary

Cleanharbors-San Jose-Commercial Street

Job No: C28504

United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Project No: J07265475

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C28504-1	06/26/13	16:48 KM	06/28/13	AQ	Water	FRAC TANK 3
C28504-1T	06/26/13	16:48 KM	06/28/13	AQ	Water	FRAC TANK 3
C28504-2	06/26/13	17:09 KM	06/28/13	AQ	Water	FRAC TANK 4
C28504-2T	06/26/13	17:09 KM	06/28/13	AQ	Water	FRAC TANK 4

Summary of Hits

Page 1 of 1

Job Number: C28504
Account: Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA
Collected: 06/26/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C28504-1 FRAC TANK 3

Aroclor 1254 ^a	0.45	0.19	0.094	ug/l	SW846 8082
Aroclor 1260 ^a	0.49	0.19	0.057	ug/l	SW846 8082
Antimony	21.9	6.0		ug/l	SW846 6010B
Cadmium	203	2.0		ug/l	SW846 6010B
Chromium	384	10		ug/l	SW846 6010B
Cobalt	8.4	5.0		ug/l	SW846 6010B
Copper	1240	10		ug/l	SW846 6010B
Lead	2630	10		ug/l	SW846 6010B
Mercury	0.35	0.20		ug/l	SW846 7470A
Molybdenum	340	20		ug/l	SW846 6010B
Nickel	123	5.0		ug/l	SW846 6010B
Silver	190	5.0		ug/l	SW846 6010B
Zinc	845	20		ug/l	SW846 6010B

C28504-1T FRAC TANK 3

No hits reported in this sample.

C28504-2 FRAC TANK 4

Aroclor 1254 ^a	11.5	2.0	1.0	ug/l	SW846 8082
Aroclor 1260 ^a	3.9	2.0	0.60	ug/l	SW846 8082
Antimony	41.1	6.0		ug/l	SW846 6010B
Arsenic	23.3	10		ug/l	SW846 6010B
Barium	377	200		ug/l	SW846 6010B
Cadmium	764	2.0		ug/l	SW846 6010B
Chromium	2300	10		ug/l	SW846 6010B
Cobalt	40.6	5.0		ug/l	SW846 6010B
Copper	3050	10		ug/l	SW846 6010B
Lead	6760	10		ug/l	SW846 6010B
Mercury	2.4	0.20		ug/l	SW846 7470A
Molybdenum	569	20		ug/l	SW846 6010B
Nickel	949	5.0		ug/l	SW846 6010B
Silver	463	5.0		ug/l	SW846 6010B
Vanadium	32.1	10		ug/l	SW846 6010B
Zinc	2820	20		ug/l	SW846 6010B

C28504-2T FRAC TANK 4

No hits reported in this sample.

(a) Estimated value due to the presence of multiple overlapping Aroclor patterns.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	FRAC TANK 3	Date Sampled:	06/26/13
Lab Sample ID:	C28504-1	Date Received:	06/28/13
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	United Airlines - 800 South Airport Boulevard, South San Francisco, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO368481.D	2	07/01/13	RV	07/01/13	OP8260	GOO1182
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.19	0.038	ug/l	
11104-28-2	Aroclor 1221	ND	0.19	0.094	ug/l	
11141-16-5	Aroclor 1232	ND	0.19	0.094	ug/l	
53469-21-9	Aroclor 1242	ND	0.19	0.094	ug/l	
12672-29-6	Aroclor 1248	ND	0.19	0.094	ug/l	
11097-69-1	Aroclor 1254 ^a	0.45	0.19	0.094	ug/l	
11096-82-5	Aroclor 1260 ^a	0.49	0.19	0.057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	70%		28-116%
877-09-8	Tetrachloro-m-xylene	46%		28-116%
2051-24-3	Decachlorobiphenyl	47%		36-121%
2051-24-3	Decachlorobiphenyl	58%		36-121%

(a) Estimated value due to the presence of multiple overlapping Aroclor patterns.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: FRAC TANK 3

Lab Sample ID: C28504-1

Matrix: AQ - Water

Date Sampled: 06/26/13

Date Received: 06/28/13

Percent Solids: n/a

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	21.9	6.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Arsenic	< 10	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Barium	< 200	200	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Beryllium	< 5.0	5.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Cadmium	203	2.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Chromium	384	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Cobalt	8.4	5.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Copper	1240	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Lead	2630	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Mercury	0.35	0.20	ug/l	1	07/01/13	07/02/13 DQ	SW846 7470A ²	EPA 245.1/SW7470A ⁴
Molybdenum	340	20	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Nickel	123	5.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Selenium	< 10	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Silver	190	5.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Thallium	< 10	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Vanadium	< 10	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Zinc	845	20	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³

(1) Instrument QC Batch: MA3264

(2) Instrument QC Batch: MA3266

(3) Prep QC Batch: MP6399

(4) Prep QC Batch: MP6403

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FRAC TANK 3	Date Sampled:	06/26/13
Lab Sample ID:	C28504-1T	Date Received:	06/28/13
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	United Airlines - 800 South Airport Boulevard, South San Francisco, CA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Cadmium	< 0.010	D006	1.0	0.010	mg/l	1	07/01/13	07/02/13 RS	SW846 6010B ¹	SW3010A ²

- (1) Instrument QC Batch: MA3265
(2) Prep QC Batch: MP6401

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	FRAC TANK 4	Date Sampled:	06/26/13
Lab Sample ID:	C28504-2	Date Received:	06/28/13
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	United Airlines - 800 South Airport Boulevard, South San Francisco, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO368482.D	20	07/01/13	RV	07/01/13	OP8260	GOO1182
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	2.0	0.40	ug/l	
11104-28-2	Aroclor 1221	ND	2.0	1.0	ug/l	
11141-16-5	Aroclor 1232	ND	2.0	1.0	ug/l	
53469-21-9	Aroclor 1242	ND	2.0	1.0	ug/l	
12672-29-6	Aroclor 1248	ND	2.0	1.0	ug/l	
11097-69-1	Aroclor 1254 ^a	11.5	2.0	1.0	ug/l	
11096-82-5	Aroclor 1260 ^a	3.9	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	43%		28-116%
877-09-8	Tetrachloro-m-xylene	30%		28-116%
2051-24-3	Decachlorobiphenyl	59%		36-121%
2051-24-3	Decachlorobiphenyl	62%		36-121%

(a) Estimated value due to the presence of multiple overlapping Aroclor patterns.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: FRAC TANK 4

Lab Sample ID: C28504-2

Matrix: AQ - Water

Date Sampled: 06/26/13

Date Received: 06/28/13

Percent Solids: n/a

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	41.1	6.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Arsenic	23.3	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Barium	377	200	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Beryllium	< 5.0	5.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Cadmium	764	2.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Chromium	2300	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Cobalt	40.6	5.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Copper	3050	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Lead	6760	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Mercury	2.4	0.20	ug/l	1	07/01/13	07/02/13 DQ	SW846 7470A ²	EPA 245.1/SW7470A ⁴
Molybdenum	569	20	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Nickel	949	5.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Selenium	< 10	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Silver	463	5.0	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Thallium	< 10	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Vanadium	32.1	10	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³
Zinc	2820	20	ug/l	1	07/01/13	07/01/13 RS	SW846 6010B ¹	SW3010A ³

(1) Instrument QC Batch: MA3264

(2) Instrument QC Batch: MA3266

(3) Prep QC Batch: MP6399

(4) Prep QC Batch: MP6403

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FRAC TANK 4	Date Sampled:	06/26/13
Lab Sample ID:	C28504-2T	Date Received:	06/28/13
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	United Airlines - 800 South Airport Boulevard, South San Francisco, CA		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Cadmium	< 0.010	D006	1.0	0.010	mg/l	1	07/01/13	07/02/13 RS	SW846 6010B ¹	SW3010A ²

- (1) Instrument QC Batch: MA3265
(2) Prep QC Batch: MP6401

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

"CLNCAST505.3"

[illegible]

C28504: Chain of Custody

Page 1 of 2



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C28504 Client: CLEAN HARBORS - SAN JOSE, CA Project: UNITED AIRLINES
Date / Time Received: 6/28/2013 Delivery Method: Client Airbill #s:
Cooler Temps (Initial/Adjusted): #1: (30.4/30.4): 0

Cooler Security

	Y or N			Y or N	
1. Custody Seals Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cooler Temperature

	Y or N	
1. Temp criteria achieved:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Cooler temp verification:	IR1 Plastic;	
3. Cooler media:	No Ice	
4. No. Coolers:	0	

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. VOCs headspace free:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Comments 1-8oz Glass Jar N/P rec'd for TCLP (Cd)>>>>Total Solids present

Accutest Laboratories
V: 408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www.accutest.com

C28504: Chain of Custody
Page 2 of 2

GC Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: C28504

Account: CLNCASJ Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8260-MB	OO368486.D	1	07/01/13	RV	07/01/13	OP8260	GOO1182

The QC reported here applies to the following samples:

Method: SW846 8082

C28504-1, C28504-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.10	0.020	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	0.050	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	0.050	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	0.050	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	0.050	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	0.050	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	0.030	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	81% 28-116%
877-09-8	Tetrachloro-m-xylene	71% 28-116%
2051-24-3	Decachlorobiphenyl	82% 36-121%
2051-24-3	Decachlorobiphenyl	77% 36-121%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C28504

Account: CLNCASJ Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8260-BS	OO368487.D	1	07/01/13	RV	07/01/13	OP8260	GOO1182
OP8260-BSD	OO368488.D	1	07/01/13	RV	07/01/13	OP8260	GOO1182

The QC reported here applies to the following samples:

Method: SW846 8082

C28504-1, C28504-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	0.4	0.36	90	0.38	95	5	52-110/20
11096-82-5	Aroclor 1260	0.4	0.42	105	0.45	113	7	50-121/19

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	84%	86%	28-116%
877-09-8	Tetrachloro-m-xylene	73%	74%	28-116%
2051-24-3	Decachlorobiphenyl	81%	85%	36-121%
2051-24-3	Decachlorobiphenyl	77%	81%	36-121%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/01/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	13	8.5		
Antimony	6.0	.7	.51	0.60	<6.0
Arsenic	10	.7	.65	-0.90	<10
Barium	200	.4	.35	0.50	<200
Beryllium	5.0	.2	.4	-0.10	<5.0
Bismuth	20		2.9		
Boron	100	.9	.64		
Cadmium	2.0	.2	.15	0.10	<2.0
Calcium	5000	7.1	12		
Chromium	10	.3	.41	0.0	<10
Cobalt	5.0	.2	.3	-0.10	<5.0
Copper	10	1.2	3	0.20	<10
Iron	200	6.4	12		
Lead	10	.7	.85	0.20	<10
Lithium	50		2		
Magnesium	5000	27	36		
Manganese	15	.1	1.3		
Molybdenum	20	.2	.22	0.30	<20
Nickel	5.0	.2	.12	-0.30	<5.0
Potassium	10000	18	44		
Selenium	10	1.8	2.2	-0.30	<10
Silicon	100	1.2	6.9		
Silver	5.0	.3	.47	-0.40	<5.0
Sodium	10000	15	13		
Strontium	10	.2	.24		
Thallium	10	.5	.54	-0.90	<10
Tin	50	.2	.7		
Titanium	10	.4	.34		
Vanadium	10	.3	.3	0.30	<10
Zinc	20	.3	4.2	-0.30	<20

Associated samples MP6399: C28504-1, C28504-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
 Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6399
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 07/01/13

Metal	C28497-2 Original MS		Spikelot MPIR4A	% Rec	QC Limits
Aluminum					
Antimony	0.0	532	500	106.4	75-125
Arsenic	4.5	533	500	105.7	75-125
Barium	141	633	500	98.4	75-125
Beryllium	0.0	501	500	100.2	75-125
Bismuth					
Boron					
Cadmium	0.40	514	500	102.7	75-125
Calcium					
Chromium	0.40	503	500	100.5	75-125
Cobalt	0.0	514	500	102.8	75-125
Copper	2.1	517	500	103.0	75-125
Iron					
Lead	5.1	513	500	101.6	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum	13.9	531	500	103.4	75-125
Nickel	0.20	502	500	100.4	75-125
Potassium					
Selenium	2.3	534	500	106.3	75-125
Silicon					
Silver	0.0	477	500	95.4	75-125
Sodium					
Strontium					
Thallium	0.0	502	500	100.4	75-125
Tin					
Titanium					
Vanadium	0.0	500	500	100.0	75-125
Zinc	263	768	500	101.0	75-125

Associated samples MP6399: C28504-1, C28504-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
 Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6399
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 07/01/13

Metal	C28497-2 Original	MSD	Spikelet MPIR4A	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.0	528	500	105.6	0.8	20
Arsenic	4.5	528	500	104.7	0.9	20
Barium	141	632	500	98.2	0.2	20
Beryllium	0.0	500	500	100.0	0.2	20
Bismuth						
Boron						
Cadmium	0.40	507	500	101.3	1.4	20
Calcium						
Chromium	0.40	506	500	101.1	0.6	20
Cobalt	0.0	509	500	101.8	1.0	20
Copper	2.1	521	500	103.8	0.8	20
Iron						
Lead	5.1	508	500	100.6	1.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum	13.9	526	500	102.4	0.9	20
Nickel	0.20	495	500	99.0	1.4	20
Potassium						
Selenium	2.3	527	500	104.9	1.3	20
Silicon						
Silver	0.0	476	500	95.2	0.2	20
Sodium						
Strontium						
Thallium	0.0	498	500	99.6	0.8	20
Tin						
Titanium						
Vanadium	0.0	502	500	100.4	0.4	20
Zinc	263	760	500	99.4	1.0	20

Associated samples MP6399: C28504-1, C28504-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
 Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6399
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 07/01/13

07/01/13

Metal	BSP Result	Spikelot MPIR4A	% Rec	QC Limits	BSD Result	Spikelot MPIR4A	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	527	500	105.4	80-120	523	500	104.6	0.8	
Arsenic	503	500	100.6	80-120	498	500	99.6	1.0	
Barium	503	500	100.6	80-120	504	500	100.8	0.2	
Beryllium	502	500	100.4	80-120	504	500	100.8	0.4	
Bismuth									
Boron									
Cadmium	506	500	101.2	80-120	501	500	100.2	1.0	
Calcium									
Chromium	524	500	104.8	80-120	514	500	102.8	1.9	
Cobalt	544	500	108.8	80-120	541	500	108.2	0.6	
Copper	539	500	107.8	80-120	530	500	106.0	1.7	
Iron									
Lead	499	500	99.8	80-120	495	500	99.0	0.8	
Lithium									
Magnesium									
Manganese									
Molybdenum	520	500	104.0	80-120	515	500	103.0	1.0	
Nickel	482	500	96.4	80-120	478	500	95.6	0.8	
Potassium									
Selenium	509	500	101.8	80-120	506	500	101.2	0.6	
Silicon									
Silver	478	500	95.6	80-120	470	500	94.0	1.7	
Sodium									
Strontium									
Thallium	525	500	105.0	80-120	518	500	103.6	1.3	
Tin									
Titanium									
Vanadium	507	500	101.4	80-120	498	500	99.6	1.8	
Zinc	526	500	105.2	80-120	521	500	104.2	1.0	

Associated samples MP6399: C28504-1, C28504-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6399
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/01/13

Metal	C28497-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.00	0.00	NC	0-10
Arsenic	4.50	0.00	100.0(a)	0-10
Barium	141	154	9.4	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron				
Cadmium	0.400	0.00	100.0(a)	0-10
Calcium				
Chromium	0.400	5.50	1275.0(a)	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	2.10	9.30	342.9(a)	0-10
Iron				
Lead	5.10	8.40	64.7 (a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum	13.9	13.0	6.5	0-10
Nickel	0.200	7.20	3500.0(a)	0-10
Potassium				
Selenium	2.30	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	0.00	0.00	NC	0-10
Zinc	263	288	9.2	0-10

Associated samples MP6399: C28504-1, C28504-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6401
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 07/01/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	1.0	.067	.042		
Antimony	0.030	.0035	.0026		
Arsenic	0.050	.0035	.0033		
Barium	1.0	.002	.0018		
Beryllium	0.025	.001	.002		
Boron	0.50	.0045	.0032		
Cadmium	0.010	.001	.00075	0.00050	<0.010
Calcium	25	.036	.061		
Chromium	0.050	.0015	.0021		
Cobalt	0.025	.001	.0015		
Copper	0.050	.006	.015		
Iron	1.0	.032	.062		
Lead	0.050	.0035	.0043		
Magnesium	25	.14	.18		
Manganese	0.075	.0005	.0063		
Molybdenum	0.10	.001	.0011		
Nickel	0.025	.001	.0006		
Potassium	50	.09	.22		
Selenium	0.050	.009	.011		
Silicon	0.50	.006	.035		
Silver	0.025	.0015	.0024		
Sodium	50	.074	.066		
Strontium	0.050	.001	.0012		
Thallium	0.050	.0025	.0027		
Tin	0.25	.001	.0035		
Titanium	0.050	.002	.0017		
Vanadium	0.050	.0015	.0015		
Zinc	0.10	.0015	.021		

Associated samples MP6401: C28504-1T, C28504-2T

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6401
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 07/01/13

Metal	C28504-1T Original MS		Spikelot MPIR4A	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium	0.0040	2.5	2.5	99.8	75-125
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP6401: C28504-1T, C28504-2T

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6401
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 07/01/13

Metal	C28504-1T Original	MSD	Spikelot MPIR4A	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium	0.0040	2.6	2.5	103.8	3.9	20
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP6401: C28504-1T, C28504-2T

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6401
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 07/01/13

Metal	BSP Result	Spikelot MPIR4A	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium	2.5	2.5	100.0	80-120
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP6401: C28504-1T, C28504-2T

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6401
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/01/13

Metal	C28504-1T		QC	
	Original	SDL 1:5	%DIF	Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium	0.800	1.10	37.5 (a)	0-10
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP6401: C28504-1T, C28504-2T

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6403
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 07/01/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.02	.08	-0.059	<0.20

Associated samples MP6403: C28504-1, C28504-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6403

Methods: SW846 7470A

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

07/01/13

Metal	C28508-1 Original	MSD	Spikelot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.9	4	97.5	2.6	30

Associated samples MP6403: C28504-1, C28504-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6403

Methods: SW846 7470A

Matrix Type: AQUEOUS

Units: ug/l

Prep Date: 07/01/13

Metal	C28508-1 Original MS	Spikelot HGPWS1	% Rec	QC Limits
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Mercury	0.0	3.8	4	95.0	75-125
---------	-----	-----	---	------	--------

Associated samples MP6403: C28504-1, C28504-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.3.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C28504

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6403

Methods: SW846 7470A

Matrix Type: AQUEOUS

Units: ug/l

Prep Date: 07/01/13

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
-------	---------------	--------------------	-------	--------------

Mercury	2.1	2	105.0	85-115
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Associated samples MP6403: C28504-1, C28504-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested



06/18/13

Technical Report for

Cleanharbors-San Jose-Commercial Street

United Airlines - 800 South Airport Boulevard, South San Francisco, CA

J05251345

Accutest Job Number: C28168

Sampling Date: 06/10/13

Report to:

Clean Harbors Environmental Services
1010 Commercial Street
San Jose, CA 95112
myers.kyle@cleanharbors.com

ATTN: Kyle Myers

Total number of pages in report: **26**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'James J. Rhudy'.

James J. Rhudy
Lab Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

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Test results relate only to samples analyzed.

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Sample Summary

Cleanharbors-San Jose-Commercial Street

Job No: C28168

United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Project No: J05251345

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
C28168-1	06/10/13	19:07	KM	06/11/13	SO	Sludge	DRUM SAMPLE 1
C28168-2	06/10/13	19:22	KM	06/11/13	SO	Sludge	DRUM SAMPLE 2

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: C28168
Account: Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA
Collected: 06/10/13

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C28168-1 DRUM SAMPLE 1

Aroclor 1254 ^a	447	330	170	ug/kg	SW846 8082
Aroclor 1260 ^a	298 J	330	66	ug/kg	SW846 8082
Antimony ^b	29.5	4.8		mg/kg	SW846 6010B
Arsenic ^b	9.2	4.8		mg/kg	SW846 6010B
Barium ^b	163	48		mg/kg	SW846 6010B
Cadmium ^b	330	2.4		mg/kg	SW846 6010B
Chromium ^b	848	2.4		mg/kg	SW846 6010B
Cobalt ^b	74.8	2.4		mg/kg	SW846 6010B
Copper ^b	2400	6.0		mg/kg	SW846 6010B
Lead ^b	253	4.8		mg/kg	SW846 6010B
Mercury	1.3	0.19		mg/kg	SW846 7471A
Molybdenum ^b	694	4.8		mg/kg	SW846 6010B
Nickel ^b	848	2.4		mg/kg	SW846 6010B
Silver ^b	127	2.4		mg/kg	SW846 6010B
Vanadium ^b	19.5	2.4		mg/kg	SW846 6010B
Zinc ^b	837	4.8		mg/kg	SW846 6010B

C28168-2 DRUM SAMPLE 2

Aroclor 1254 ^a	373	330	170	ug/kg	SW846 8082
Aroclor 1260 ^c	238 J	330	66	ug/kg	SW846 8082
Antimony ^b	28.7	5.0		mg/kg	SW846 6010B
Arsenic ^b	8.2	5.0		mg/kg	SW846 6010B
Barium ^b	248	50		mg/kg	SW846 6010B
Cadmium ^b	496	2.5		mg/kg	SW846 6010B
Chromium ^b	1260	2.5		mg/kg	SW846 6010B
Cobalt ^b	103	2.5		mg/kg	SW846 6010B
Copper ^b	6640	6.3		mg/kg	SW846 6010B
Lead ^b	316	5.0		mg/kg	SW846 6010B
Mercury	1.5	0.18		mg/kg	SW846 7471A
Molybdenum ^b	1800	5.0		mg/kg	SW846 6010B
Nickel ^b	1020	2.5		mg/kg	SW846 6010B
Silver ^b	101	2.5		mg/kg	SW846 6010B
Vanadium ^b	21.8	2.5		mg/kg	SW846 6010B
Zinc ^b	805	5.0		mg/kg	SW846 6010B

(a) Estimated value due to the presence of multiple overlapping Aroclor patterns.

(b) Elevated reporting limit(s) due to dilution required for high interfering element.

(c) Estimated value due to the presence of multiple overlapping Aroclor patterns. Quantitation between primary and secondary columns was > 40%. Lower value reported.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	DRUM SAMPLE 1	Date Sampled:	06/10/13
Lab Sample ID:	C28168-1	Date Received:	06/11/13
Matrix:	SO - Sludge	Percent Solids:	n/a ^a
Method:	SW846 8082 SW846 3550B		
Project:	United Airlines - 800 South Airport Boulevard, South San Francisco, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PP030989.D	10	06/13/13	RV	06/12/13	OP8137	GPP1015
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	330	66	ug/kg	
11104-28-2	Aroclor 1221	ND	330	170	ug/kg	
11141-16-5	Aroclor 1232	ND	330	170	ug/kg	
53469-21-9	Aroclor 1242	ND	330	170	ug/kg	
12672-29-6	Aroclor 1248	ND	330	170	ug/kg	
11097-69-1	Aroclor 1254 ^b	447	330	170	ug/kg	
11096-82-5	Aroclor 1260 ^b	298	330	66	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		38-109%
877-09-8	Tetrachloro-m-xylene	74%		38-109%
2051-24-3	Decachlorobiphenyl	4603% ^c		49-138%
2051-24-3	Decachlorobiphenyl	-10% ^c		49-138%

(a) All results reported on a wet weight basis.

(b) Estimated value due to the presence of multiple overlapping Aroclor patterns.

(c) Outside control limits due to matrix interference (sludge sample).

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DRUM SAMPLE 1

Lab Sample ID: C28168-1

Date Sampled: 06/10/13

Matrix: SO - Sludge

Date Received: 06/11/13

Percent Solids: n/a ^a

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony ^b	29.5	4.8	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Arsenic ^b	9.2	4.8	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Barium ^b	163	48	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Beryllium ^b	< 2.4	2.4	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Cadmium ^b	330	2.4	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Chromium ^b	848	2.4	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Cobalt ^b	74.8	2.4	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Copper ^b	2400	6.0	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Lead ^b	253	4.8	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Mercury	1.3	0.19	mg/kg	5	06/12/13	06/13/13 RW	SW846 7471A ¹	EPA 245.1/SW7470A ⁴
Molybdenum ^b	694	4.8	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Nickel ^b	848	2.4	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Selenium ^b	< 4.8	4.8	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Silver ^b	127	2.4	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Thallium ^b	< 16	16	mg/kg	5	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Vanadium ^b	19.5	2.4	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Zinc ^b	837	4.8	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³

(1) Instrument QC Batch: MA3217

(2) Instrument QC Batch: MA3228

(3) Prep QC Batch: MP6318

(4) Prep QC Batch: MP6320

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DRUM SAMPLE 2	Date Sampled:	06/10/13
Lab Sample ID:	C28168-2	Date Received:	06/11/13
Matrix:	SO - Sludge	Percent Solids:	n/a ^a
Method:	SW846 8082 SW846 3550B		
Project:	United Airlines - 800 South Airport Boulevard, South San Francisco, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PP030990.D	10	06/13/13	RV	06/12/13	OP8137	GPP1015
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	330	66	ug/kg	
11104-28-2	Aroclor 1221	ND	330	170	ug/kg	
11141-16-5	Aroclor 1232	ND	330	170	ug/kg	
53469-21-9	Aroclor 1242	ND	330	170	ug/kg	
12672-29-6	Aroclor 1248	ND	330	170	ug/kg	
11097-69-1	Aroclor 1254 ^b	373	330	170	ug/kg	
11096-82-5	Aroclor 1260 ^c	238	330	66	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		38-109%
877-09-8	Tetrachloro-m-xylene	96%		38-109%
2051-24-3	Decachlorobiphenyl	4089% ^d		49-138%
2051-24-3	Decachlorobiphenyl	-10% ^d		49-138%

(a) All results reported on a wet weight basis.

(b) Estimated value due to the presence of multiple overlapping Aroclor patterns.

(c) Estimated value due to the presence of multiple overlapping Aroclor patterns. Quantitation between primary and secondary columns was > 40%. Lower value reported.

(d) Outside control limits due to matrix interference (sludge sample).

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DRUM SAMPLE 2**Lab Sample ID:** C28168-2**Matrix:** SO - Sludge**Date Sampled:** 06/10/13**Date Received:** 06/11/13**Percent Solids:** n/a ^a**Project:** United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony ^b	28.7	5.0	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Arsenic ^b	8.2	5.0	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Barium ^b	248	50	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Beryllium ^b	< 2.5	2.5	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Cadmium ^b	496	2.5	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Chromium ^b	1260	2.5	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Cobalt ^b	103	2.5	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Copper ^b	6640	6.3	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Lead ^b	316	5.0	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Mercury	1.5	0.18	mg/kg	5	06/12/13	06/13/13 RW	SW846 7471A ¹	EPA 245.1/SW7470A ⁴
Molybdenum ^b	1800	5.0	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Nickel ^b	1020	2.5	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Selenium ^b	< 5.0	5.0	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Silver ^b	101	2.5	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Thallium ^b	< 10	10	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Vanadium ^b	21.8	2.5	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³
Zinc ^b	805	5.0	mg/kg	3	06/12/13	06/17/13 RS	SW846 6010B ²	SW846 3050B ³

(1) Instrument QC Batch: MA3217

(2) Instrument QC Batch: MA3228

(3) Prep QC Batch: MP6318

(4) Prep QC Batch: MP6320

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to dilution required for high interfering element.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

CLNCAST 5053

[illegible]

4.4.1

C28168: Chain of Custody

Page 1 of 2



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C28168 Client: CLEAN HARBORS - San Jose, CA Project: ERM/UAL
Date / Time Received: 6/11/2013 Delivery Method: Client Airbill #s:
Cooler Temps (Initial/Adjusted): #1: (20.3/19.3): 0

Cooler Security

	Y or N			Y or N	
1. Custody Seals Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cooler Temperature

	Y or N	
1. Temp criteria achieved:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Cooler temp verification:	IR Gun	
3. Cooler media:	No Ice	
4. No. Coolers:	0	

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Samples preserved properly:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Comments

Accutest Laboratories
V: 408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www.accutest.com

C28168: Chain of Custody
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GC Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: C28168

Account: CLNCASJ Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8137-MB	OO368274.D 1		06/12/13	RV	06/12/13	OP8137	GOO1171

The QC reported here applies to the following samples:

Method: SW846 8082

C28168-1, C28168-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	6.7	ug/kg	
11104-28-2	Aroclor 1221	ND	33	17	ug/kg	
11141-16-5	Aroclor 1232	ND	33	17	ug/kg	
53469-21-9	Aroclor 1242	ND	33	17	ug/kg	
12672-29-6	Aroclor 1248	ND	33	17	ug/kg	
11097-69-1	Aroclor 1254	ND	33	17	ug/kg	
11096-82-5	Aroclor 1260	ND	33	6.7	ug/kg	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	111% * a
877-09-8	Tetrachloro-m-xylene	38-109%
2051-24-3	Decachlorobiphenyl	109%
2051-24-3	Decachlorobiphenyl	49-138%

(a) Outside laboratory control limits (high bias).

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C28168

Account: CLNCASJ Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8137-BS	OO368275.D	1	06/13/13	RV	06/12/13	OP8137	GOO1171
OP8137-BSD	OO368276.D	1	06/13/13	RV	06/12/13	OP8137	GOO1171

The QC reported here applies to the following samples:

Method: SW846 8082

C28168-1, C28168-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	133	137	103	136	102	1	46-114/22
11096-82-5	Aroclor 1260	133	164	123	167	125	2	54-127/21

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	106%	107%	38-109%
877-09-8	Tetrachloro-m-xylene	97%	96%	38-109%
2051-24-3	Decachlorobiphenyl	104%	104%	49-138%
2051-24-3	Decachlorobiphenyl	107%	106%	49-138%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C28168

Account: CLNCASJ Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8137-MS	PP030981.D	1000	06/12/13	RV	06/12/13	OP8137	GPP1014
OP8137-MSD	PP030982.D	1000	06/12/13	RV	06/12/13	OP8137	GPP1014
C28211-18	PP030977.D	1000	06/12/13	RV	06/12/13	OP8137	GPP1014

The QC reported here applies to the following samples:

Method: SW846 8082

C28168-1, C28168-2

CAS No.	Compound	C28211-18 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	145	ND	0* a	ND	0* a	nc		46-114/22
11096-82-5	Aroclor 1260	108000	145	155000	32335* b	149000	28198* b			54-127/21

CAS No.	Surrogate Recoveries	MS	MSD	C28211-18	Limits
877-09-8	Tetrachloro-m-xylene	89%	76%	82%	38-109%
877-09-8	Tetrachloro-m-xylene	113% * c	107%	93%	38-109%
2051-24-3	Decachlorobiphenyl	328% * c	163% * c	260% * c	49-138%
2051-24-3	Decachlorobiphenyl	375% * c	113%	99%	49-138%

(a) Not recoverable due to required dilution.

(b) Outside control limits due to high level in sample relative to spike amount.

(c) Outside control limits due to dilution.

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C28168

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6318
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 06/12/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	1.3	2		
Antimony	2.0	.07	.087	-0.010	<2.0
Arsenic	2.0	.07	.07	-0.10	<2.0
Barium	20	.04	.035	0.22	<20
Beryllium	1.0	.02	.012	0.010	<1.0
Boron	10	.09	.2		
Cadmium	1.0	.02	.015	0.040	<1.0
Calcium	500	.71	7.6		
Chromium	1.0	.03	.054	0.080	<1.0
Cobalt	1.0	.02	.022	0.0	<1.0
Copper	2.5	.12	.19	0.45	<2.5
Iron	20	.64	1.6		
Lead	2.0	.07	.054	-0.030	<2.0
Magnesium	500	2.7	1.5		
Manganese	1.5	.01	.054		
Molybdenum	2.0	.02	.024	0.030	<2.0
Nickel	1.0	.02	.024	0.010	<1.0
Potassium	1000	1.8	1.3		
Selenium	2.0	.18	.23	0.040	<2.0
Silicon		.12			
Silver	1.0	.03	.044	0.040	<1.0
Sodium	1000	1.5	4.8		
Strontium	1.0	.02	.017		
Thallium	2.0	.05	.073	-0.090	<2.0
Tin	50	.02	.41		
Titanium	1.0	.04	.079		
Vanadium	1.0	.03	.025	0.010	<1.0
Zinc	2.0	.03	.098	-0.060	<2.0

Associated samples MP6318: C28168-1, C28168-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28168

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6318

Methods: SW846 6010B

Matrix Type: SOLID

Units: mg/kg

Prep Date:

06/12/13

Metal	C28173-1 Original MS		Spikelot MPIR4A	% Rec	QC Limits
Aluminum					
Antimony	0.27	12.3	42.7	28.2N(a)	75-125
Arsenic	6.9	47.4	42.7	94.8	75-125
Barium	297	270	42.7	-63.2(b)	75-125
Beryllium	0.76	44.0	42.7	101.2	75-125
Boron					
Cadmium	0.28	42.9	42.7	99.7	75-125
Calcium					
Chromium	53.0	96.0	42.7	100.6	75-125
Cobalt	13.6	52.4	42.7	90.8	75-125
Copper	27.0	71.8	42.7	104.8	75-125
Iron					
Lead	13.6	56.4	42.7	100.2	75-125
Magnesium					
Manganese					
Molybdenum	0.85	39.2	42.7	89.7	75-125
Nickel	80.9	117	42.7	84.5	75-125
Potassium					
Selenium	0.72	41.0	42.7	94.3	75-125
Silicon					
Silver	0.20	41.3	42.7	96.2	75-125
Sodium					
Strontium					
Thallium	0.87	44.5	42.7	102.1	75-125
Tin					
Titanium					
Vanadium	47.1	87.5	42.7	94.5	75-125
Zinc	61.4	97.7	42.7	84.9	75-125

Associated samples MP6318: C28168-1, C28168-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference.

(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28168

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6318

Methods: SW846 6010B

Matrix Type: SOLID

Units: mg/kg

Prep Date:

06/12/13

Metal	C28173-1 Original	MSD	Spikelot MPIR4A	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.27	12.0	42.7	27.4N(a)	2.5	20
Arsenic	6.9	46.9	42.7	93.6	1.1	20
Barium	297	265	42.7	-74.9(b)	1.9	20
Beryllium	0.76	43.2	42.7	99.3	1.8	20
Boron						
Cadmium	0.28	42.5	42.7	98.8	0.9	20
Calcium						
Chromium	53.0	95.0	42.7	98.3	1.0	20
Cobalt	13.6	52.1	42.7	90.1	0.6	20
Copper	27.0	71.0	42.7	103.0	1.1	20
Iron						
Lead	13.6	55.7	42.7	98.5	1.2	20
Magnesium						
Manganese						
Molybdenum	0.85	38.9	42.7	89.0	0.8	20
Nickel	80.9	116	42.7	82.1	0.9	20
Potassium						
Selenium	0.72	40.8	42.7	93.8	0.5	20
Silicon						
Silver	0.20	41.1	42.7	95.7	0.5	20
Sodium						
Strontium						
Thallium	0.87	44.3	42.7	101.6	0.5	20
Tin						
Titanium						
Vanadium	47.1	86.7	42.7	92.7	0.9	20
Zinc	61.4	96.6	42.7	82.4	1.1	20

Associated samples MP6318: C28168-1, C28168-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference.

(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C28168

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6318

Methods: SW846 6010B

Matrix Type: SOLID

Units: mg/kg

Prep Date: 06/12/13

Metal	BSP Result	Spikelot MPIR4A	% Rec	QC Limits
Aluminum				
Antimony	50.8	50	101.6	80-120
Arsenic	49.6	50	99.2	80-120
Barium	51.7	50	103.4	80-120
Beryllium	51.7	50	103.4	80-120
Boron				
Cadmium	50.7	50	101.4	80-120
Calcium				
Chromium	53.4	50	106.8	80-120
Cobalt	54.7	50	109.4	80-120
Copper	52.6	50	105.2	80-120
Iron				
Lead	49.5	50	99.0	80-120
Magnesium				
Manganese				
Molybdenum	52.2	50	104.4	80-120
Nickel	49.3	50	98.6	80-120
Potassium				
Selenium	49.2	50	98.4	80-120
Silicon				
Silver	48.4	50	96.8	80-120
Sodium				
Strontium				
Thallium	51.6	50	103.2	80-120
Tin				
Titanium				
Vanadium	51.2	50	102.4	80-120
Zinc	55.0	50	110.0	80-120

Associated samples MP6318: C28168-1, C28168-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C28168

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6318
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/12/13

Metal	C28173-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	3.10	0.00	100.0 (a)	0-10
Arsenic	79.8	81.7	2.4	0-10
Barium	3450	3530	2.3	0-10
Beryllium	8.80	8.60	2.3	0-10
Boron				
Cadmium	3.30	3.40	3.0	0-10
Calcium				
Chromium	614	658	7.1	0-10
Cobalt	157	171	8.6	0-10
Copper	313	318	1.5	0-10
Iron				
Lead	158	151	4.2	0-10
Magnesium				
Manganese				
Molybdenum	9.90	9.20	7.1	0-10
Nickel	938	911	2.9	0-10
Potassium				
Selenium	8.40	10.7	27.4 (a)	0-10
Silicon				
Silver	2.30	2.80	21.7 (a)	0-10
Sodium				
Strontium				
Thallium	10.1	8.10	19.8 (a)	0-10
Tin				
Titanium				
Vanadium	546	578	5.7	0-10
Zinc	712	754	5.9	0-10

Associated samples MP6318: C28168-1, C28168-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C28168

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street
Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6320
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 06/12/13

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.042	.00035	.0043	0.0039	<0.042

Associated samples MP6320: C28168-1, C28168-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28168

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6320

Methods: SW846 7471A

Matrix Type: SOLID

Units: mg/kg

Prep Date:

06/12/13

Metal	C28146-1		Spikelot		QC
	Original	MS	HGPWS1	% Rec	Limits

Mercury	0.10	0.38	0.286	98.0	75-125
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Associated samples MP6320: C28168-1, C28168-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.2.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C28168

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6320

Methods: SW846 7471A

Matrix Type: SOLID

Units: mg/kg

Prep Date:

06/12/13

Metal	C28146-1		Spikelot		MSD	QC
	Original	MSD	HGPWS1	% Rec	RPD	Limit
Mercury	0.10	0.36	0.29	89.7	5.4	20

Associated samples MP6320: C28168-1, C28168-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C28168

Account: CLNCASJ - Cleanharbors-San Jose-Commercial Street

Project: United Airlines - 800 South Airport Boulevard, South San Francisco, CA

QC Batch ID: MP6320

Methods: SW846 7471A

Matrix Type: SOLID

Units: mg/kg

Prep Date: 06/12/13

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
-------	---------------	--------------------	-------	--------------

Mercury	0.15	0.167	90.0	80-120
---------	------	-------	------	--------

Associated samples MP6320: C28168-1, C28168-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

6.2.3

6

Table B-1
Waste Characterization Summary
United Airlines
San Francisco Maintenance Center

Liquid Samples	Sample Date	PCB List (EPA Method 8082)								Metal Analysis (EPA Method 6010B) and Mercury (EPA Method 7470A)																
		Aroclor 1016 (µg/L)	Aroclor 1221 (µg/L)	Aroclor 1232 (µg/L)	Aroclor 1242 (µg/L)	Aroclor 1248 (µg/L)	Aroclor 1254 (µg/L)	Aroclor 1260 (µg/L)	Aroclor 1268 (µg/L)	Antimony (µg/L)	Arsenic (µg/L)	Barium (µg/L)	Beryllium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Cobalt (µg/L)	Copper (µg/L)	Lead (µg/L)	Mercury (µg/L)	Molybdenum (µg/L)	Nickel (µg/L)	Selenium (µg/L)	Silver (µg/L)	Thallium (µg/L)	Vanadium (µg/L)	Zinc (µg/L)
Frac Tank1 #1	5/30/2013	< 0.12	< 0.12	<0.12	< 0.12	< 0.12	< 0.12	0.14 ^a	-	69.8	11.3	346	< 5.0	1,360	3,980	98.9	6,730	673	2.3	502	1,020	< 10	176	< 10	24.4	2,110
Frac Tank1 #2	5/30/2013	< 0.12	< 0.12	<0.12	< 0.12	< 0.12	< 0.12	0.050 J	-	62.3	11.1	348	< 5.0	1,360	3,980	99.7	6,780	687	2.4	462	1,030	< 10	175	< 10	24.2	2,130
Frac Tank 2 #1	6/14/2013	-	-	-	-	-	-	-	-	69.5	12.8	<200	<5.0	221	624	30.5	6,600	906	0.61	596	352	<10	77.6	<10	38.6	565
Frac Tank 2 #2	6/14/2013	-	-	-	-	-	-	-	-	69.4	12.4	<200	<5.0	223	632	30.8	6,960	952	0.64	595	373	<10	79.7	<10	38.2	608
Frac Tank 2 #3	6/14/2013	-	-	-	-	-	-	-	-	73.9	11.1	<200	<5.0	217	498	23.4	5,080	828	0.48	531	280	<10	48.4	<10	29	499
Frac Tank 2 #4	6/14/2013	-	-	-	-	-	-	-	-	79.7	11.7	<200	<5.0	235	538	24.8	5,510	880	0.52	569	296	<10	52.9	<10	31	522
Frac Tank 2 #5	6/14/2013	<1.9	<1.9	<1.9	<1.9	<1.9	2.2 ^c	1.2 a, J	<1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Frac Tank #3	6/26/2013	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	0.45	0.49	-	21.9	<10	<200	<5.0	203	384	8.4	1,240	2,630	0.35	340	123	<10	190	<10	<10	845
Frac Tank #4	6/26/2013	<2.0	<2.0	<2.0	<2.0	<2.0	11.5	3.9	-	41.1	23.3	377	<5.0	764	2,300	40.6	3,050	6,760	2.4	569	949	<10	463	<10	32.1	2,820

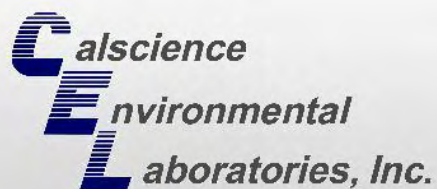
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	TCLP Analysis (Cadmium only), in units (µg/L)															
Frac Tank #1	6/20/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	< 10	-	-	-	-	-	-	-	-	-	-
Frac Tank #3	6/26/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	< 10	-	-	-	-	-	-	-	-	-	-
Frac Tank #4	6/26/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	< 10	-	-	-	-	-	-	-	-	-	-

										Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Frac Tank #1 sent for treatability test**	6/17/2013	-	-	-	-	-	-	-	-	-	7.1	150	-	430	1000	-	-	260	3.2	-	-	5	73	-	-	-

										Metal Analysis (EPA Method 6010B)																
Sludge Samples		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
Drum Sample 1	6/10/2013	<330	<330	<330	<330	<330	447 ^c	298 ^c J	-	29.5 ^b	9.2 ^b	163 ^b	<2.4 ^b	330 ^b	848 ^b	74.8 ^b	2,400 ^b	253 ^b	1.3	694 ^b	848 ^b	<4.8 ^b	127 ^b	<16 ^b	19.5 ^b	837 ^b
Drum Sample 2	6/10/2013	<330	<330	<330	<330	<330	373 ^c	238 ^d J	-	28.7 ^b	8.2 ^b	248 ^b	<2.5 ^d	496 ^b	1,260 ^b	103 ^b	6,640 ^b	316 ^b	1.5	1,800 ^b	1,020 ^b	<5.0 ^b	101 ^b	<10 ^b	21.8 ^b	805 ^b
Drum Sample 7	7/12/2013	<10	<10	<10	<10	<10	<10	<10	<10	18	66.3	117	<.25	151	441	27	1,020	115	0.97	248	301	<.25	36.8	1.22	23.8	265
Frac Tank1 Sludge	7/12/2013	<20	<20	<20	<20	<20	<20	<20	<20	9.91	6.59	69.7	<.25	131	308	22.4	1,230	102	0.81	242	241	<.75	29.7	1.97	<.25	223
Frac Tank2 Sludge	7/12/2013	<10	<10	<10	<10	<10	<10	<10	<10	30.8	4.25	102	<.25	146	466	22	2,520	307	0.36	165	251	<.75	65.8	1.32	17.4	381
Frac Tank3 Sludge	7/12/2013	<10	<10	<10	<10	<10	<10	<10	<10	125	10.1	122	0.31	231	740	34.6	5,060	2,410	0.68	313	513	<.75	135	2.15	36.7	967
Frac Tank4 Sludge	7/12/2013	<5000	<5000	<5000	<5000	<5000	20,000	<5000	<5000	119	13.8	316	0.74	303	1,490	67.1	5,720	3,020	2.79	572	1500	4.44	139	4.38	48.1	1,150

Notes: a = Quantitation between primary and confirmation differed by > 40% possibly due to matrix interference. Lower value reported.
c= Estimated value due to the presence of multiple overlapping Aroclor patterns
b= Elevated reporting limit(s) due to dilution required for high interfering element
d=Estimated value due to the presence of multiple overlapping Aroclor patterns. Quantation between primary and secondary columns was >40 %. Lower value reported.
J = Indicates an estimated value.
- = Not analyzed.
** Sample analyzed using EPA Method 200.8 as part of treatment testing.

Appendix C
Sample Analytical Results



CALSCIENCE

WORK ORDER NUMBER: 13-07-0107

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ERM - West

Client Project Name: UNITED SFMC PCB's / 0163462.01

Attention: Kevin Mucha
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Approved for release on 07/11/2013 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



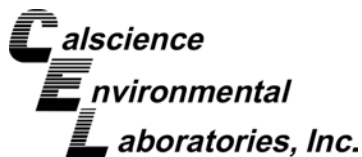
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NELAP ID: 03220CA | DoD-ELAP ID: L10-41 | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

Client Project Name: UNITED SFMC PCB's / 0163462.01
Work Order Number: 13-07-0107

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5	Quality Control Sample Data.	7
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Work Order Narrative

Work Order: 13-07-0107

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 07/02/13. They were assigned to Work Order 13-07-0107.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT \leq 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

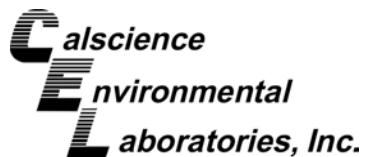
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

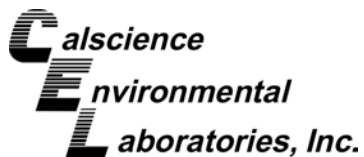


Sample Summary

Client:	ERM - West	Work Order:	13-07-0107
	1277 Treat Boulevard, Suite 500	Project Name:	UNITED SFMC PCB's / 0163462.01
	Walnut Creek, CA 94597-7989	PO Number:	
		Date Received:	07/02/13
Attn:	Kevin Mucha		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B10-L2D9-G-Conf.	13-07-0107-1	06/28/13 14:10	1	Wipe


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Detections Summary

Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-07-0107
Project Name: UNITED SFMC PCB's / 0163462.01
Received: 07/02/13

Attn: Kevin Mucha

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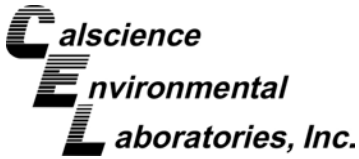
Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
B10-L2D9-G-Conf. (13-07-0107-1) Aroclor-1262	14		1.0	ug/smpl	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.


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* MDL is shown



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/02/13
Work Order: 13-07-0107
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L2D9-G-Conf.	13-07-0107-1-A	06/28/13 14:10	Wipe	GC 31	07/06/13	07/09/13 13:54	130706L04

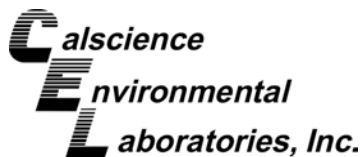
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	14	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	106	50-130	
2,4,5,6-Tetrachloro-m-Xylene	97	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	94	50-130	
2,4,5,6-Tetrachloro-m-Xylene	81	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - LCS/LCSD

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/02/13
Work Order: 13-07-0107
Preparation: EPA 3540C
Method: EPA 8082

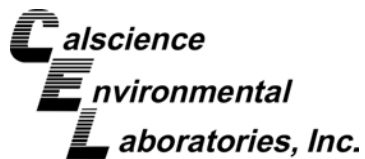
Project: UNITED SFMC PCB's / 0163462.01

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Quality Control Sample ID	Matrix		Instrument		Date Prepared	Date Analyzed		LCS/LCSD Batch Number	
099-12-582-218	Soil		GC 31		07/06/13	07/09/13 12:57		130706L04	
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	1.651	83	1.792	90	50-135	8	0-25	
Aroclor-1260	2.000	1.446	72	1.512	76	50-135	4	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Sample Analysis Summary Report

Work Order: 13-07-0107Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8082	EPA 3540C	669	GC 31	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 13-07-0107

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	For any analysis identified as a "field" test with a holding time (HT) \leq 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Environmental Resources
Management





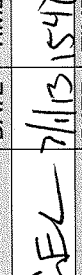
CHAIN OF CUSTODY RECORD

NO: 07729

13-07-0107

1277 Treat Boulevard, Suite 500 • Walnut Creek, CA • 94597 • (925) 946-0455 • FAX (925) 946-9968

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PROJECT #		PROJECT NAME		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS							
016342101		UNITED SMC - PCB'S				WATER SOIL GAS									
SAMPLER: (PRINT NAME)		(SIGNATURE)													
KEVIN MACHA															
RECEIVING LABORATORY															
Cal Science															
SAMPLE I.D.	DATE	TIME	COM	GRAB	SAMPLING METHOD	PRESERVED	ICE	SAMPLING VOLUME							
BIO-12DP-6-CONF. 6/28/13	7/1/13	1410	V	WIPE	—	—	—	WIPE	X						
<div>RELINQUISHED BY (SIGNATURE)</div>  <div>DATE</div> 7/1/13 <div>TIME</div> 1540										RECEIVED BY	DATE	TIME			
										<div>RELINQUISHED BY (SIGNATURE)</div>  <div>DATE</div> 7/1/13 <div>TIME</div> 1730			RECEIVED BY	DATE	TIME
										<div>RELINQUISHED BY (SIGNATURE)</div>  <div>DATE</div> 7/1/13 <div>TIME</div> 1100			RECEIVED BY	DATE	TIME
										<div>RELINQUISHED BY (SIGNATURE)</div>  <div>DATE</div> 7/1/13 <div>TIME</div> 1540			RECEIVED BY	DATE	TIME
FIELD REMARKS															
PROJECT SPECIFIC ANALYSIS - SEE BOB STEARNS - SOXHLET METHOD FOR WIPES.															
SEND REPORT TO: KEVIN.MACHA@ERM.COM TERRI.HERSON@ERM.COM															

0107



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CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

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GARDEN GROVE, CA 92841

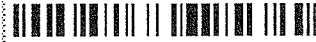
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ERM, PORT COSTA, CARDNO ERI, TP6

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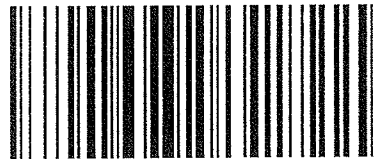
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GARDEN GROVE

A

D92841A



13631510

Print Date : 07/01/13 16:21 PM

Package 1 of 1

Send Label To Printer

☒ Print All

Edit Shipment

Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email

Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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WORK ORDER #: **13-07-** ☒ ☐ ☐ ☒

SAMPLE RECEIPT FORM

 Cooler 1 of 1

 CLIENT: ERM

 DATE: 07/02/13
TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

 Temperature 2.5 °C - 0.2 °C (CF) = 2.3 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

 Ambient Temperature: ☐ Air ☐ Filter

 Initial: PS
CUSTODY SEALS INTACT:
☒ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A

 Initial: PS
☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

 Initial: PS
SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

 Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

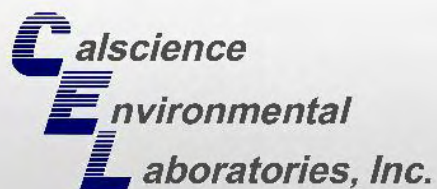
 Water: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s
☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

 Air: ☐ Tedlar® ☐ Canister Other: ☒ 4 oz CGJ (w/ wipe) Trip Blank Lot#: _____ Labeled/Checked by: PS

 Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: PS

 Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: PS



CALSCIENCE

WORK ORDER NUMBER: 13-06-1696

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ERM - West

Client Project Name: UNITED SFMC PCB's / 0163462

Attention: Kevin Mucha
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Approved for release on 07/11/2013 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



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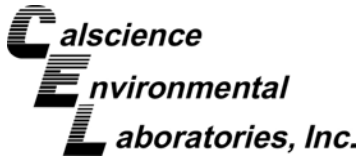
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NELAP ID: 03220CA | DoD-ELAP ID: L10-41 | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

Client Project Name: UNITED SFMC PCB's / 0163462
 Work Order Number: 13-06-1696

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Work Order Narrative

Work Order: 13-06-1696

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/26/13. They were assigned to Work Order 13-06-1696.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT \leq 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

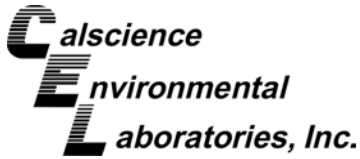
Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

CASE NARRATIVE

**Calscience Work Order No.: 13-06-1696
UNITED SFMC PCBs / 0163462**

EPA 8082 PCBs:

Samples received consisted of both wipe samples and soil samples. All were extracted by EPA 3540C and analyzed by EPA 8082. Most of the samples showed detectable levels of Aroclors 1254 and 1260, and 1248 also appears in certain samples. Because of the difficulty in distinguishing the Aroclors in the chromatography, certain samples were subject to additional investigation, including analysis for PCB Congeners that represent the Aroclors identified.



Sample Summary

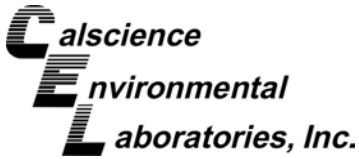
Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-06-1696
Project Name: UNITED SFMC PCB's / 0163462
PO Number:
Date Received: 06/26/13

Attn: Kevin Mucha

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B10-UP-1A	13-06-1696-1	06/24/13 16:36	1	Soil
B10-UP-1B	13-06-1696-2	06/24/13 16:44	1	Soil
B10-UP-1C	13-06-1696-3	06/24/13 16:47	1	Soil
B10-UP-1D	13-06-1696-4	06/24/13 16:34	1	Soil
B10-UP-1E	13-06-1696-5	06/24/13 16:38	1	Soil
B10-UP-1F	13-06-1696-6	06/24/13 16:33	1	Soil
B10-UP-2A	13-06-1696-7	06/24/13 17:17	1	Soil
B10-UP-2B	13-06-1696-8	06/24/13 17:18	1	Soil
B10-UP-2C	13-06-1696-9	06/24/13 17:08	1	Soil
B10-UP-2D	13-06-1696-10	06/24/13 17:19	1	Soil
B10-UP-2E	13-06-1696-11	06/24/13 17:21	1	Soil
B10-UP-2F	13-06-1696-12	06/24/13 17:24	1	Soil
B10-UP-3A	13-06-1696-13	06/24/13 17:36	1	Soil
B10-UP-3B	13-06-1696-14	06/24/13 17:37	1	Soil
B10-UP-3C	13-06-1696-15	06/24/13 17:35	1	Soil
B10-UP-3D	13-06-1696-16	06/24/13 17:38	1	Soil
B10-UP-3E	13-06-1696-17	06/24/13 17:41	3	Soil
B10-UP-3F	13-06-1696-18	06/24/13 17:43	1	Soil
B10-UP-3F-DUP	13-06-1696-19	06/24/13 17:43	1	Soil
B10-UP-1A-W	13-06-1696-20	06/24/13 20:07	1	Wipe
B10-UP-1B-W	13-06-1696-21	06/24/13 20:08	1	Wipe
B10-UP-1C-W	13-06-1696-22	06/24/13 20:09	1	Wipe
B10-UP-1D-W	13-06-1696-23	06/24/13 20:10	1	Wipe
B10-UP-1E-W	13-06-1696-24	06/24/13 20:11	1	Wipe
B10-UP-1F-W	13-06-1696-25	06/24/13 20:12	1	Wipe
B10-UP-2A-W	13-06-1696-26	06/24/13 20:14	1	Wipe
B10-UP-2B-W	13-06-1696-27	06/24/13 20:15	1	Wipe
B10-UP-2C-W	13-06-1696-28	06/24/13 20:16	1	Wipe
B10-UP-2C-W	13-06-1696-29	06/24/13 20:16	1	Wipe
B10-UP-2D-W	13-06-1696-30	06/24/13 20:17	1	Wipe
B10-UP-2E-W	13-06-1696-31	06/24/13 20:18	1	Wipe
B10-UP-2F-W	13-06-1696-32	06/24/13 20:19	1	Wipe
B10-UP-3A-W	13-06-1696-33	06/24/13 20:23	1	Wipe
B10-UP-3B-W	13-06-1696-34	06/24/13 20:24	1	Wipe
B10-UP-3C-W	13-06-1696-35	06/24/13 20:25	1	Wipe
B10-UP-3D-W	13-06-1696-36	06/24/13 20:26	1	Wipe
B10-UP-3E-W	13-06-1696-37	06/24/13 20:27	1	Wipe
B10-UP-3F-W	13-06-1696-38	06/24/13 20:28	1	Wipe
B10-UP-MS-W	13-06-1696-39	06/24/13 20:25	1	Wipe
B10-UP-MSD-W	13-06-1696-40	06/24/13 20:28	1	Wipe

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Detections Summary

Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-06-1696
Project Name: UNITED SFMC PCB's / 0163462
Received: 06/26/13

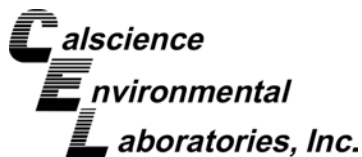
Attn: Kevin Mucha

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B10-UP-1A (13-06-1696-1)						
Aroclor-1248	2600		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	44000		5000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	63000		5000	ug/kg	EPA 8082	EPA 3540C
B10-UP-1B (13-06-1696-2)						
Aroclor-1232	35000		5000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	29000		5000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	23000		5000	ug/kg	EPA 8082	EPA 3540C
B10-UP-1C (13-06-1696-3)						
Aroclor-1248	2700		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	22000		5000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	9700		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-1D (13-06-1696-4)						
Aroclor-1254	68000		5000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	42000		5000	ug/kg	EPA 8082	EPA 3540C
B10-UP-1E (13-06-1696-5)						
Aroclor-1254	70000		5000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	33000		5000	ug/kg	EPA 8082	EPA 3540C
B10-UP-1F (13-06-1696-6)						
Aroclor-1254	14000		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	13000		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-2A (13-06-1696-7)						
Aroclor-1248	5300		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	9000		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	2800		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-2B (13-06-1696-8)						
Aroclor-1248	13000		2000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	17000		2000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	7800		2000	ug/kg	EPA 8082	EPA 3540C
B10-UP-2C (13-06-1696-9)						
Aroclor-1248	4500		2000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	10000		2000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	6800		2000	ug/kg	EPA 8082	EPA 3540C
B10-UP-2D (13-06-1696-10)						
Aroclor-1248	6500		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	11000		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	4400		1000	ug/kg	EPA 8082	EPA 3540C

* MDL is shown



Detections Summary

Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-06-1696
Project Name: UNITED SFMC PCB's / 0163462
Received: 06/26/13

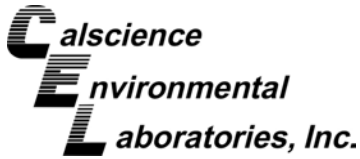
Attn: Kevin Mucha

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
B10-UP-2E (13-06-1696-11)						
Aroclor-1248	4200		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	21000		5000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	23000		5000	ug/kg	EPA 8082	EPA 3540C
B10-UP-2F (13-06-1696-12)						
Aroclor-1248	13000		2000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	19000		2000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	7600		2000	ug/kg	EPA 8082	EPA 3540C
B10-UP-3A (13-06-1696-13)						
Aroclor-1248	2400		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	9000		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	3700		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-3B (13-06-1696-14)						
Aroclor-1248	4200		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	13000		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	7900		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-3C (13-06-1696-15)						
Aroclor-1248	2000		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	5500		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	6900		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-3D (13-06-1696-16)						
Aroclor-1254	4200		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	2600		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-3E (13-06-1696-17)						
Aroclor-1254	12000		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	6500		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-3F (13-06-1696-18)						
Aroclor-1248	2400		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	11000		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	6200		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-3F-DUP (13-06-1696-19)						
Aroclor-1248	1800		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	8300		1000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	5700		1000	ug/kg	EPA 8082	EPA 3540C
B10-UP-1A-W (13-06-1696-20)						
Aroclor-1248	3.6		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	26		10	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	44		10	ug/smpl	EPA 8082	EPA 3540C

* MDL is shown



Detections Summary

Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-06-1696
Project Name: UNITED SFMC PCB's / 0163462
Received: 06/26/13

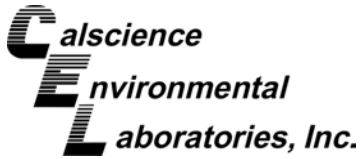
Attn: Kevin Mucha

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B10-UP-1B-W (13-06-1696-21)						
Aroclor-1248	1.7		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	6.2		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	8.2		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-1C-W (13-06-1696-22)						
Aroclor-1254	18		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	8.9		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-1D-W (13-06-1696-23)						
Aroclor-1254	56		10	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	30		10	ug/smpl	EPA 8082	EPA 3540C
B10-UP-1E-W (13-06-1696-24)						
Aroclor-1254	64		10	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	41		10	ug/smpl	EPA 8082	EPA 3540C
B10-UP-1F-W (13-06-1696-25)						
Aroclor-1254	15		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	14		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-2A-W (13-06-1696-26)						
Aroclor-1248	2.9		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	4.6		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	2.6		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-2B-W (13-06-1696-27)						
Aroclor-1248	4.0		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	4.6		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	2.3		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-2C-W (13-06-1696-28)						
Aroclor-1248	2.9		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	8.9		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	6.3		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-2C-W (13-06-1696-29)						
Aroclor-1248	3.3		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	10		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	7.7		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-2D-W (13-06-1696-30)						
Aroclor-1248	2.5		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	6.2		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	2.1		1.0	ug/smpl	EPA 8082	EPA 3540C

* MDL is shown



Detections Summary

Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-06-1696
Project Name: UNITED SFMC PCB's / 0163462
Received: 06/26/13

Attn: Kevin Mucha

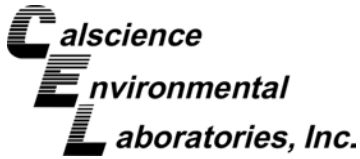
Page 4 of 4

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B10-UP-2E-W (13-06-1696-31)						
Aroclor-1248	2.6		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	12		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	13		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-2F-W (13-06-1696-32)						
Aroclor-1248	11		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	19		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	7.1		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-3A-W (13-06-1696-33)						
Aroclor-1248	2.6		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	7.4		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	3.7		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-3B-W (13-06-1696-34)						
Aroclor-1248	3.6		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	12		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	6.6		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-3C-W (13-06-1696-35)						
Aroclor-1248	3.2		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1254	15		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	9.2		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-3D-W (13-06-1696-36)						
Aroclor-1254	7.2		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	4.8		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-3E-W (13-06-1696-37)						
Aroclor-1254	5.3		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	3.4		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-UP-3F-W (13-06-1696-38)						
Aroclor-1254	11		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	6.4		1.0	ug/smpl	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-1A-W	13-06-1696-20-A	06/24/13 20:07	Wipe	GC 31	06/27/13	07/01/13 22:46	130627L04

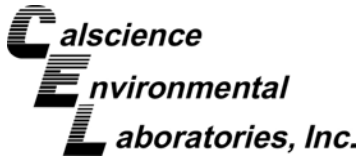
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	3.6	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	136	50-130	2,7
2,4,5,6-Tetrachloro-m-Xylene	91	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1254	26	10	10	
Aroclor-1260	44	10	10	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	108	50-130	
2,4,5,6-Tetrachloro-m-Xylene	90	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-1B-W	13-06-1696-21-A	06/24/13 20:08	Wipe	GC 31	06/27/13	07/01/13 23:05	130627L04

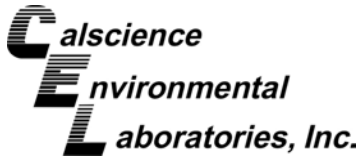
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	1.7	1.0	1	
Aroclor-1254	6.2	1.0	1	
Aroclor-1260	8.2	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	118	50-130	
2,4,5,6-Tetrachloro-m-Xylene	79	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	18	1.0	1	
Aroclor-1260	8.9	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	139	50-130	2,7
2,4,5,6-Tetrachloro-m-Xylene	82	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-1D-W	13-06-1696-23-A	06/24/13 20:10	Wipe	GC 31	06/27/13	07/01/13 23:43	130627L04

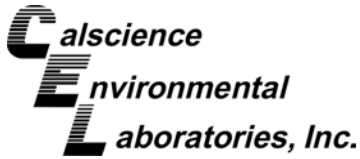
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	123	50-130	
2,4,5,6-Tetrachloro-m-Xylene	75	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1254	56	10	10	
Aroclor-1260	30	10	10	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	111	50-130	
2,4,5,6-Tetrachloro-m-Xylene	92	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-1E-W	13-06-1696-24-A	06/24/13 20:11	Wipe	GC 31	06/27/13	07/02/13 00:02	130627L04

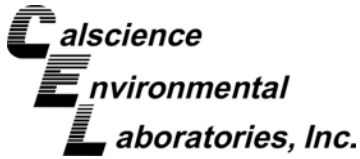
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	153	50-130	2,7
2,4,5,6-Tetrachloro-m-Xylene	76	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1254	64	10	10	
Aroclor-1260	41	10	10	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	135	50-130	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	93	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-1F-W	13-06-1696-25-A	06/24/13 20:12	Wipe	GC 31	06/27/13	07/02/13 00:21	130627L04

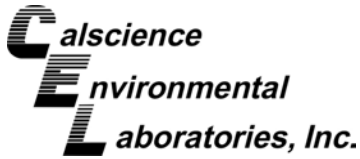
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	15	1.0	1	
Aroclor-1260	14	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	123	50-130	
2,4,5,6-Tetrachloro-m-Xylene	82	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	2.9	1.0	1	
Aroclor-1254	4.6	1.0	1	
Aroclor-1260	2.6	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	109	50-130	
2,4,5,6-Tetrachloro-m-Xylene	82	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-2B-W	13-06-1696-27-A	06/24/13 20:15	Wipe	GC 31	06/27/13	07/02/13 00:59	130627L04

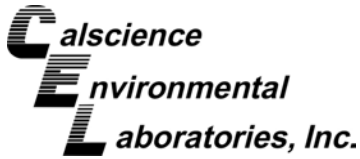
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	4.0	1.0	1	
Aroclor-1254	4.6	1.0	1	
Aroclor-1260	2.3	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	106	50-130	
2,4,5,6-Tetrachloro-m-Xylene	81	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	2.9	1.0	1	
Aroclor-1254	8.9	1.0	1	
Aroclor-1260	6.3	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	118	50-130	
2,4,5,6-Tetrachloro-m-Xylene	78	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-2C-W	13-06-1696-29-A	06/24/13 20:16	Wipe	GC 31	06/27/13	07/02/13 01:38	130627L04

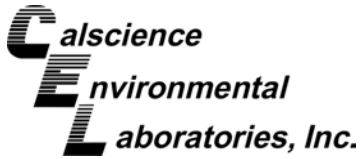
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	3.3	1.0	1	
Aroclor-1254	10	1.0	1	
Aroclor-1260	7.7	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	121	50-130	
2,4,5,6-Tetrachloro-m-Xylene	81	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	2.5	1.0	1	
Aroclor-1254	6.2	1.0	1	
Aroclor-1260	2.1	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	106	50-130	
2,4,5,6-Tetrachloro-m-Xylene	80	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-2E-W	13-06-1696-31-A	06/24/13 20:18	Wipe	GC 31	06/27/13	07/02/13 02:16	130627L04

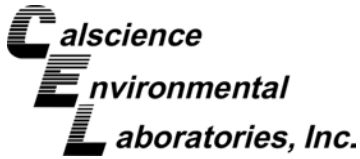
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	2.6	1.0	1	
Aroclor-1254	12	1.0	1	
Aroclor-1260	13	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	110	50-130	
2,4,5,6-Tetrachloro-m-Xylene	83	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	11	1.0	1	
Aroclor-1254	19	1.0	1	
Aroclor-1260	7.1	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	100	50-130	
2,4,5,6-Tetrachloro-m-Xylene	73	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-3A-W	13-06-1696-33-A	06/24/13 20:23	Wipe	GC 31	06/27/13	07/02/13 02:54	130627L04

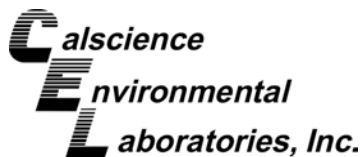
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	2.6	1.0	1	
Aroclor-1254	7.4	1.0	1	
Aroclor-1260	3.7	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	109	50-130	
2,4,5,6-Tetrachloro-m-Xylene	81	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	3.6	1.0	1	
Aroclor-1254	12	1.0	1	
Aroclor-1260	6.6	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	111	50-130	
2,4,5,6-Tetrachloro-m-Xylene	84	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-3C-W	13-06-1696-35-A	06/24/13 20:25	Wipe	GC 31	06/27/13	07/02/13 03:32	130627L04

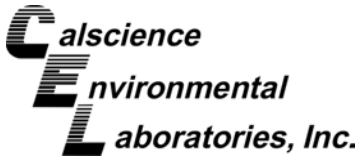
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	3.2	1.0	1	
Aroclor-1254	15	1.0	1	
Aroclor-1260	9.2	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	112	50-130	
2,4,5,6-Tetrachloro-m-Xylene	79	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	7.2	1.0	1	
Aroclor-1260	4.8	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	108	50-130	
2,4,5,6-Tetrachloro-m-Xylene	78	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-3E-W	13-06-1696-37-A	06/24/13 20:27	Wipe	GC 31	06/27/13	07/02/13 04:10	130627L04

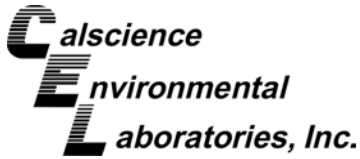
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	5.3	1.0	1	
Aroclor-1260	3.4	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	107	50-130	
2,4,5,6-Tetrachloro-m-Xylene	77	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	11	1.0	1	
Aroclor-1260	6.4	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	99	50-130	
2,4,5,6-Tetrachloro-m-Xylene	72	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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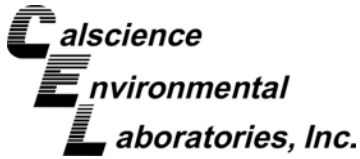
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-582-217	N/A	Soil	GC 31	06/27/13	07/01/13 16:25	130627L04

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	50-130	
2,4,5,6-Tetrachloro-m-Xylene	79	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-1A	13-06-1696-1-A	06/24/13 16:36	Soil	GC 31	06/27/13	07/03/13 15:36	130627L06

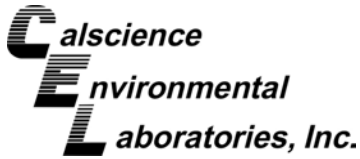
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	2600	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	86	50-150	
Decachlorobiphenyl	260	50-150	1,2,7

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1254	44000	5000	500	
Aroclor-1260	63000	5000	500	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	92	50-150	
Decachlorobiphenyl	270	50-150	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-1B	13-06-1696-2-A	06/24/13 16:44	Soil	GC 31	06/27/13	07/02/13 20:01	130627L06

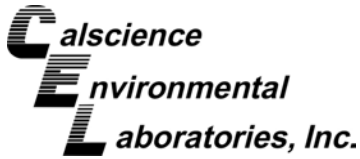
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	5000	500	
Aroclor-1221	ND	5000	500	
Aroclor-1232	35000	5000	500	
Aroclor-1242	ND	5000	500	
Aroclor-1248	ND	5000	500	
Aroclor-1254	29000	5000	500	
Aroclor-1260	23000	5000	500	
Aroclor-1262	ND	5000	500	
Aroclor-1268	ND	5000	500	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	82	50-150	
Decachlorobiphenyl	275	50-150	1,2,7

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	2700	1000	100	
Aroclor-1260	9700	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	73	50-150	
Decachlorobiphenyl	390	50-150	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-1C	13-06-1696-3-A	06/24/13 16:47	Soil	GC 31	06/27/13	07/02/13 20:20	130627L06

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1254	22000	5000	500	

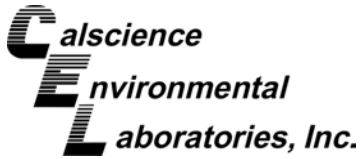
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	81	50-150	
Decachlorobiphenyl	308	50-150	1,2,7

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	5000	500	
Aroclor-1221	ND	5000	500	
Aroclor-1232	ND	5000	500	
Aroclor-1242	ND	5000	500	
Aroclor-1248	ND	5000	500	
Aroclor-1254	68000	5000	500	
Aroclor-1260	42000	5000	500	
Aroclor-1262	ND	5000	500	
Aroclor-1268	ND	5000	500	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	84	50-150	
Decachlorobiphenyl	101	50-150	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-1E	13-06-1696-5-A	06/24/13 16:38	Soil	GC 31	06/27/13	07/02/13 20:58	130627L06

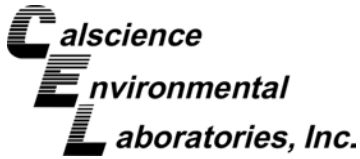
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	5000	500	
Aroclor-1221	ND	5000	500	
Aroclor-1232	ND	5000	500	
Aroclor-1242	ND	5000	500	
Aroclor-1248	ND	5000	500	
Aroclor-1254	70000	5000	500	
Aroclor-1260	33000	5000	500	
Aroclor-1262	ND	5000	500	
Aroclor-1268	ND	5000	500	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	71	50-150	
Decachlorobiphenyl	295	50-150	1,2,7

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	ND	1000	100	
Aroclor-1254	14000	1000	100	
Aroclor-1260	13000	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	67	50-150	
Decachlorobiphenyl	639	50-150	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
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Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
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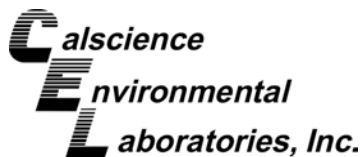
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	5300	1000	100	
Aroclor-1254	9000	1000	100	
Aroclor-1260	2800	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	59	50-150	
Decachlorobiphenyl	101	50-150	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	2000	200	
Aroclor-1221	ND	2000	200	
Aroclor-1232	ND	2000	200	
Aroclor-1242	ND	2000	200	
Aroclor-1248	13000	2000	200	
Aroclor-1254	17000	2000	200	
Aroclor-1260	7800	2000	200	
Aroclor-1262	ND	2000	200	
Aroclor-1268	ND	2000	200	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	89	50-150	
Decachlorobiphenyl	271	50-150	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-2C	13-06-1696-9-A	06/24/13 17:08	Soil	GC 31	06/27/13	07/03/13 11:47	130627L06

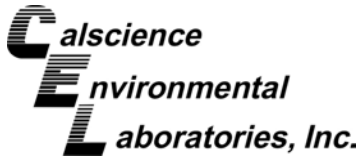
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	2000	200	
Aroclor-1221	ND	2000	200	
Aroclor-1232	ND	2000	200	
Aroclor-1242	ND	2000	200	
Aroclor-1248	4500	2000	200	
Aroclor-1254	10000	2000	200	
Aroclor-1260	6800	2000	200	
Aroclor-1262	ND	2000	200	
Aroclor-1268	ND	2000	200	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	37	50-150	1,2,6
Decachlorobiphenyl	272	50-150	1,2,7

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	6500	1000	100	
Aroclor-1254	11000	1000	100	
Aroclor-1260	4400	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	60	50-150	
Decachlorobiphenyl	129	50-150	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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ERM - West
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Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-2E	13-06-1696-11-A	06/24/13 17:21	Soil	GC 31	06/27/13	07/03/13 12:25	130627L06

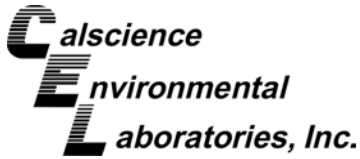
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	4200	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	60	50-150	
Decachlorobiphenyl	178	50-150	1,2,7

Parameter	Result	RL	DF	Qualifiers
Aroclor-1254	21000	5000	500	
Aroclor-1260	23000	5000	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	63	50-150	
Decachlorobiphenyl	109	50-150	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
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Date Received: 06/26/13
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Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-2F	13-06-1696-12-A	06/24/13 17:24	Soil	GC 31	06/27/13	07/03/13 12:44	130627L06

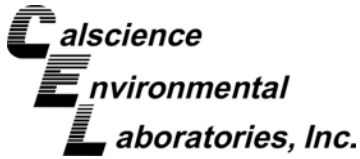
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	2000	200	
Aroclor-1221	ND	2000	200	
Aroclor-1232	ND	2000	200	
Aroclor-1242	ND	2000	200	
Aroclor-1248	13000	2000	200	
Aroclor-1254	19000	2000	200	
Aroclor-1260	7600	2000	200	
Aroclor-1262	ND	2000	200	
Aroclor-1268	ND	2000	200	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	83	50-150	
Decachlorobiphenyl	429	50-150	1,2,7

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	2400	1000	100	
Aroclor-1254	9000	1000	100	
Aroclor-1260	3700	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	58	50-150	
Decachlorobiphenyl	289	50-150	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-3B	13-06-1696-14-A	06/24/13 17:37	Soil	GC 31	06/27/13	07/03/13 13:22	130627L06

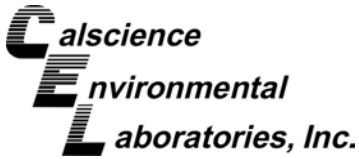
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	4200	1000	100	
Aroclor-1254	13000	1000	100	
Aroclor-1260	7900	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	98	50-150	
Decachlorobiphenyl	845	50-150	1,2,7

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	2000	1000	100	
Aroclor-1254	5500	1000	100	
Aroclor-1260	6900	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	67	50-150	
Decachlorobiphenyl	450	50-150	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-3D	13-06-1696-16-A	06/24/13 17:38	Soil	GC 31	06/27/13	07/03/13 14:00	130627L06

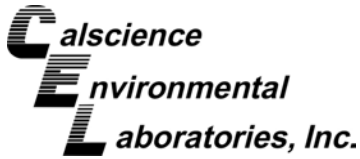
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	ND	1000	100	
Aroclor-1254	4200	1000	100	
Aroclor-1260	2600	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	63	50-150	
Decachlorobiphenyl	183	50-150	1,2,7

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	ND	1000	100	
Aroclor-1254	12000	1000	100	
Aroclor-1260	6500	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	60	50-150	
Decachlorobiphenyl	164	50-150	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-UP-3F	13-06-1696-18-A	06/24/13 17:43	Soil	GC 31	06/27/13	07/03/13 14:39	130627L06

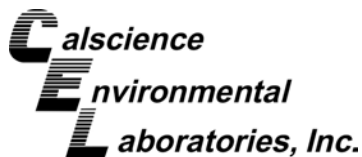
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	2400	1000	100	
Aroclor-1254	11000	1000	100	
Aroclor-1260	6200	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	55	50-150	
Decachlorobiphenyl	287	50-150	1,2,7

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1000	100	
Aroclor-1221	ND	1000	100	
Aroclor-1232	ND	1000	100	
Aroclor-1242	ND	1000	100	
Aroclor-1248	1800	1000	100	
Aroclor-1254	8300	1000	100	
Aroclor-1260	5700	1000	100	
Aroclor-1262	ND	1000	100	
Aroclor-1268	ND	1000	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	55	50-150	
Decachlorobiphenyl	219	50-150	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: UNITED SFMC PCB's / 0163462

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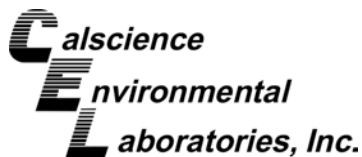
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-574-26	N/A	Soil	GC 31	06/27/13	07/02/13 18:25	130627L06

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	10	1	
Aroclor-1221	ND	10	1	
Aroclor-1232	ND	10	1	
Aroclor-1242	ND	10	1	
Aroclor-1248	ND	10	1	
Aroclor-1254	ND	10	1	
Aroclor-1260	ND	10	1	
Aroclor-1262	ND	10	1	
Aroclor-1268	ND	10	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	91	50-150	
Decachlorobiphenyl	93	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082

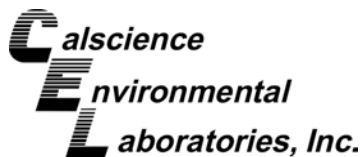
Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix		Instrument		Date Prepared	Date Analyzed	MS/MSD Batch Number			
B10-UP-3E	Soil		GC 31		06/27/13	07/03/13 15:17	130627S06			
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	ND	2000	724.8	36	956.3	48	50-115	28	0-20	3,4
Aroclor-1260	6508	2000	7349	42	6812	15	50-115	8	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082

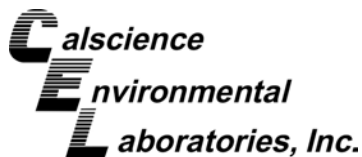
Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID		Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-582-217		Soil		GC 31	06/27/13	07/01/13 15:47	130627L04		
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	2.000	1.802	90	1.626	81	50-135	10	0-25	
Aroclor-1260	2.000	1.747	87	1.637	82	50-135	6	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

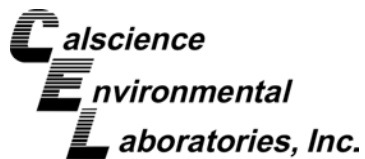
Date Received: 06/26/13
Work Order: 13-06-1696
Preparation: EPA 3540C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number	
099-15-574-26	Soil	GC 31	07/02/13 18:06	130627L06	
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016	100.0	88.02	88	55-115	
Aroclor-1260	100.0	79.67	80	55-115	

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Sample Analysis Summary Report

Work Order: 13-06-1696

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8082	EPA 3540C	421	GC 31	1
EPA 8082	EPA 3540C	669	GC 31	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 13-06-1696

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	For any analysis identified as a "field" test with a holding time (HT) \leq 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Virendra Patel

From: Bob Stearns
Sent: Wednesday, June 26, 2013 4:25 PM
To: Virendra Patel
Cc: Emma Dennison
Subject: FW: United Samples

Virendra- for Work Order 13-06-1696, the MS/MSD for the soils is associated with sample -17. This was not clear on the CoC. The MS/MSD for the wipes were associated with two separate samples. The client has decided not to perform testing for these wipe MS/MSDs, so there will be no MD/MSD for the wipe portion. In addition, the client has instructed us to combine the wipe and aqueous samples for B15 in to a single Work Order. These had been logged in separately, per your instructions (and presumably the client). So, we had to re-label and combine under 13-06-1697. Bottom line, there are just two Work Orders for the samples received this morning.

Please use this as additional documentation to accompany the CoC form in each report.

Thanks,

Bob Stearns
Vice President, Client Services
(714) 895-5494

The difference is service

PROJECT #		PROJECT NAME		REQUESTED PARAMETERS											
6163462		UNITED SFMC PCB'S		13-06-1696											
SAMPLER: (PRINT NAME)		(SIGNATURE)													
Kevin Mutha		<i>Kevin Mutha</i>													
RECEIVING LABORATORY															
CAL SCIENCE															
SAMPLE ID.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVED	W/CO	SAMPLING VOLUME	# OF CONTAINERS	MATRIX	RECEIVED BY	DATE	TIME	FIELD REMARKS	
1 B10-UP-1A	6/24/13	1717	1636	X	scoop	-	Y	402	1	X	RECEIVED BY	6/25/13	1430	PROJECT SPECIFIC ANALYSES SEE BOB STEARNS SOXHLET EXTRACTION FOR WIPES	
2 B10-UP-1B	6/24/13	1717	1644						1	X		6/25/13	1430		
3 B10-UP-1C	6/24/13	1717	1647						1	X		6/25/13	1430		
4 B10-UP-1D	6/24/13	1717	1634						1	X		6/25/13	1430		
5 B10-UP-1E	6/24/13	1717	1638						1	X		6/25/13	1430		
6 B10-UP-1F	6/24/13	1717	1633						1	X		6/25/13	1430		
7 B10-UP-2A	6/24/13	1717							1	X		6/25/13	1430		
8 B10-UP-2B	6/24/13	1718							1	X		6/25/13	1430		
9 B10-UP-2C	6/24/13	1708							1	X		6/25/13	1430		
10 B10-UP-2D	6/24/13	1719							1	X		6/25/13	1430		
RELINQUISHED BY (SIGNATURE)		DATE		TIME		DATE		TIME		RECEIVED BY		DATE		TIME	
<i>Kevin Mutha</i>		6/25/13		1430		6/25/13		1430		RECEIVED BY		6/25/13		1430	
RELINQUISHED BY (SIGNATURE)		DATE		TIME		DATE		TIME		RECEIVED BY		DATE		TIME	
<i>Kevin Mutha</i>		6/25/13		1430		6/25/13		1430		RECEIVED BY		6/25/13		1430	
RELINQUISHED BY (SIGNATURE)		DATE		TIME		DATE		TIME		RECEIVED BY		DATE		TIME	
<i>Kevin Mutha</i>		6/25/13		1430		6/25/13		1430		RECEIVED BY		6/25/13		1430	
REMARKS ON SAMPLE RECEIPT														ERM REMARKS	
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED <input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS															
SEND REPORT TO:															
Kevin Mutha @ erm.com															
Terri Hegson @ erm.com															

Environmental Resources
Management



CHAIN OF CUSTODY RECORD

NO: 07725

Page 2 of 5

1277 Treat Boulevard, Suite 500 • Walnut Creek, CA • 94597 • (925) 946-0455 • FAX (925) 946-9968

PROJECT #	PROJECT NAME	# OF CONTAINERS	MATRIX	REQUESTED PARAMETERS				
0163462	UNITED SMC PCB'S	1	WATER	1696				
SAMPLER: (PRINT NAME)	(SIGNATURE)		SOIL					
Kevin Mucha	<i>Kevin Mucha</i>		GAS					
RECEIVING LABORATORY								
CAL SCIENCE								
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVE	TO	SAMPLING VOLUME
B10-VP-2E	6/24/13	1721		* Scoop		-	Y	4oz
B10-VP-2F		1724						
B10-VP-3A		1736						
B10-VP-3B		1737						
B10-VP-3C		1735						
B10-VP-3D		1738						
B10-VP-3E		1741						
B10-VP-3F		1743						
B10-VP-3F50P		1743						
B10-VP-MS		1741						
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME	FIELD REMARKS		
<i>Kevin Mucha</i>	6/25/13	1700	To: O'Malley CER	6/25/13	1430	PROJECT SPECIFIC APPROVALS SEE BOB STEARNS SEXALLET EXTRACTION PER WIPES		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME			
<i>To: O'Malley</i>	6/25/13	1730	<i>Kevin Mucha</i>	6/25/13	1030			
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME			
REMARKS ON SAMPLE RECEIPT						ERM REMARKS		
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED								
<input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS								
SEND REPORT TO: KEVIN.MUCHA@erm.com terri.henson@erm.com								

PROJECT #		PROJECT NAME										
0163462		UNITED STINE PCB'S										
SAMPLER: (PRINT NAME)		(SIGNATURE)										
KEVIN MUECHER												
RECEIVING LABORATORY												
CALSCIENCE												
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESS. VATIVE	ICR (N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX	REQUESTED PARAMETERS	
BIO-UP-MSD	6/24/13	1741		X	SCOP	-	Y	40Z	1	X	WATER SOIL GAS	1696
BIO-UP-1A-W		2007			WIPE			WIPE				
BIO-UP-1B-W		2008										
BIO-UP-1C-W		2009										
BIO-UP-1D-W		2010										
BIO-UP-1E-W		2011										
BIO-UP-1F-W		2012										
BIO-UP-2A-W		2014										
BIO-UP-2B-W		2015										
BIO-UP-2C-W		2016										
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	FIELD REMARKS				
		6/25/13	1730	Tomlinson		6/25/13	1430	PROJECT SPECIFIC ANALYSES SEE BOB STEARNS SOXHLET EXTRACTION FOR WIPES				
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME					
Tomlinson		6/25/13	1730	M. P. P.		6/26/13	1030					
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME					
REMARKS ON SAMPLE RECEIPT								ERM REMARKS				
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED												
<input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS												
SEND REPORT TO: kevin.muecher@erdc.mil												

CHAIN OF CUSTODY RECORD

Page 4 of 5

REQUESTED PARAMETERS

PROJECT #		PROJECT NAME						
SAMPLER: (PRINT NAME)		(SIGNATURE)						
RECEIVING LABORATORY								
0163462		UNITED SFMC PCB'S						
KEVIN MURPHY		<i>[Signature]</i>						
CAL SCIENCE								
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ION (Y/N)	SAMPLING VOLUME
B10-VP-2C-W-VP	6/24/13	2016	Y	WIFE	Y	WIFE	Y	WIFE
B10-VP-2D-W	6/24/13	2017						
B10-VP-2E-W		2018						
B10-VP-2F-W		2019						
B10-VP-3A-W		2023						
B10-VP-3B-W		2024						
B10-VP-3C-W		2025						
B10-VP-3D-W		2026						
B10-VP-3E-W		2027						
B10-VP-3F-W		2028						
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	
<i>[Signature]</i>		6/25/13	1430	Tom Orvalley		6/25/13	1430	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	
<i>[Signature]</i>		6/25/13	1730	M. J. J. J.		6/25/13	1730	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	
<i>[Signature]</i>		6/25/13	1730	M. J. J. J.		6/25/13	1730	
REMARKS ON SAMPLE RECEIPT				ERM REMARKS				
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED <input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS								

CANARY – FIELD COPY JK – DATABASE

GOLD - PROJECT FILE

WHITE -- LABORATORY COPY

1277 Treat Boulevard, Suite 500 • Walnut Creek, CA • 94597 • (925) 946-0455 • FAX (925) 946-9968

PROJECT #		PROJECT NAME		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS	
0163462		UNITED STATE - PCBs							
SAMPLER: (PRINT NAME)		(SIGNATURE)							
kevin Mucha		<i>Kevin Mucha</i>							
RECEIVING LABORATORY									
CAL SCIENCE									
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE	SAMPLING VOLUME	
B10-up-m-s-w	6/24/13	2025	X	X	WIPE	-	Y	WIPE	X
B10-up-m-s-w	↓	2028	X	X	WIPE	-	Y	↓	X
<i>(Large X mark across the table)</i>									
FIELD REMARKS									
PROJECT SPECIFIC APPROVALS - SEE BOB STEARNS SOX HET EXTRACTION FOR WIPE									
SEND REPORT TO: KEVIN.MUCHA@ERM.COM Terri.Herzson@erm.com									

RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME
<i>Kevin Mucha</i>		6/25/13	1730	Tom Orinvalley		6/25/13	1430
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME
Tom Orinvalley to dso		6/25/13	1730	<i>Tom Orinvalley</i>		6/26/13	1010
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME

REMARKS ON SAMPLE RECEIPT		ERM REMARKS	
<input type="checkbox"/> BOTTLE INTACT	<input type="checkbox"/> CUSTODY SEALS	<input type="checkbox"/> CHILLED	
<input type="checkbox"/> PRESERVED	<input type="checkbox"/> SEALS INTACT	<input type="checkbox"/> SEE REMARKS	

1696



GSO
GARDEN GROVE SHIPPING

< WebShip > > > >

800-322-5555 www.gso.com

Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520 Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841 COD: \$0.00 Reference: ERM Delivery Instructions: Signature Type: SIGNATURE REQUIRED	<div style="display: flex; justify-content: space-between;"> <div> Tracking #: 522129162  </div> <div style="text-align: center; font-size: 24px; font-weight: bold;">NPS</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div style="text-align: center;"> <div style="font-size: 48px; font-weight: bold; margin: 0;">ORC</div> <div style="font-size: 24px; font-weight: bold; margin: 0;">GARDEN GROVE</div> </div> <div style="text-align: center; border: 1px solid black; padding: 10px; font-size: 36px; font-weight: bold;">A</div> </div> <div style="margin-top: 20px; text-align: center;"> <div style="font-size: 24px; font-weight: bold; margin: 0;">D92841A</div>  <div style="font-weight: bold; margin-top: 5px;">13449722</div> </div>
--	--

Print Date : 06/25/13 15:05 PM

Package 1 of 1

Send Label To Printer

☒ Print All

Edit Shipment

Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email

Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.

Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Return to Contents

WORK ORDER #: 13-06-1696

SAMPLE RECEIPT FORMCooler 1 of 1CLIENT: ERTMDATE: 06/26/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.5 °C - 0.2 °C (CF) = 2.3 °C ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.☐ Received at ambient temperature, placed on ice for transport by Courier.Ambient Temperature: ☐ Air ☐ FilterInitial: JP**CUSTODY SEALS INTACT:**☒ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/AInitial: JP☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not PresentInitial: JP**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 6/26/13	<input type="checkbox"/>
<input checked="" type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

☐ Unpreserved vials received for Volatiles analysisVolatile analysis container(s) free of headspace..... ☐ ☐ ☒Tedlar bag(s) free of condensation..... ☐ ☐ ☒**CONTAINER TYPE:**Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____Water: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____Air: ☐ Tedlar® ☐ Canister Other: ☒ 4 oz (w/pe) Trip Blank Lot#: _____ Labeled/Checked by: JPContainer: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: JPPreservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: JP

The original report has been revised/corrected.



CALSCIENCE

WORK ORDER NUMBER: 13-06-0445

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ERM - West

Client Project Name: UNITED SFMC PCB's / 0163462

Attention: Kevin Mucha
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Approved for release on 06/20/2013 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Client Project Name: UNITED SFMC PCB's / 0163462

Work Order Number: 13-06-0445

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/07/13. They were assigned to Work Order 13-06-0445.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT \leq 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

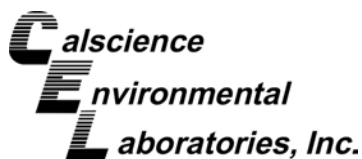
CASE NARRATIVE

Calscience Work Order No.: 13-06-0445
UNITED SFMC PCB's / 0163462

EPA 8082 PCBs:

The wipe samples were extracted by EPA Method 3540C and analyzed by EPA Method 8082. All of the samples showed undetectable levels (ND) of PCBs except #14 (B10-L2D6-G), #17 (B10-L2D9-G) and #21 (B10-L2D12-G). These samples showed detectable levels of Aroclor 1262. The Aroclor peaks examined matched the standard material and did not appear to be significantly degraded.

Samples #17 (B10-L2D9-G) and #18 (B10-L2D9-Dup-G) were labeled as duplicates on the chain of custody. However sample #17 (B10-L2D9-G) shows a concentration of 65 ug/sample of Aroclor 1262 while sample #18 (B10-L2D9-Dup-G) showed ND for PCBs. The samples were analyzed three times to confirm these values.



Sample Summary

Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-06-0445
Project Name: UNITED SFMC PCB's / 0163462
PO Number:
Date Received: 06/07/13

Attn: Kevin Mucha

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B10-L1-Rinse	13-06-0445-1	06/05/13 22:25	3	Aqueous
B10-L1-Rinse-Dup	13-06-0445-2	06/05/13 22:25	1	Aqueous
B10-L2-Rinse	13-06-0445-3	06/05/13 22:37	1	Aqueous
B10-L1D1-G	13-06-0445-4	06/05/13 21:08	1	Wipe
B10-L1D2-G	13-06-0445-5	06/05/13 21:10	1	Wipe
B10-L1D3-G	13-06-0445-6	06/05/13 21:12	1	Wipe
B10-L1D4-G	13-06-0445-7	06/05/13 21:55	1	Wipe
B10-L1D5-G	13-06-0445-8	06/05/13 21:30	1	Wipe
B10-L1D6-G	13-06-0445-9	06/05/13 21:33	1	Wipe
B10-L2D1-G	13-06-0445-10	06/05/13 21:04	1	Wipe
B10-L2D2-G	13-06-0445-11	06/05/13 21:02	1	Wipe
B10-L2D4-G	13-06-0445-12	06/05/13 20:55	1	Wipe
B10-L2D5-G	13-06-0445-13	06/05/13 21:27	1	Wipe
B10-L2D6-G	13-06-0445-14	06/05/13 20:56	3	Wipe
B10-L2D7-G	13-06-0445-15	06/05/13 20:47	1	Wipe
B10-L2D8-G	13-06-0445-16	06/05/13 20:51	1	Wipe
B10-L2D9-G	13-06-0445-17	06/05/13 20:44	1	Wipe
B10-L2D9-Dup-G	13-06-0445-18	06/05/13 20:51	1	Wipe
B10-L2D10-G	13-06-0445-19	06/05/13 20:40	1	Wipe
B10-L2D11-G	13-06-0445-20	06/05/13 20:36	1	Wipe
B10-L2D12-G	13-06-0445-21	06/05/13 20:39	1	Wipe


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Detections Summary

Client: ERM - West
 1277 Treat Boulevard, Suite 500
 Walnut Creek, CA 94597-7989

Work Order: 13-06-0445
 Project Name: UNITED SFMC PCB's / 0163462
 Received: 06/07/13

Attn: Kevin Mucha

Page 1 of 1

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
B10-L2D6-G (13-06-0445-14)						
Aroclor-1262	1.1		1.0	ug/smpl	EPA 8082	EPA 3540C
B10-L2D9-G (13-06-0445-17)						
Aroclor-1262	65		10	ug/smpl	EPA 8082	EPA 3540C
B10-L2D12-G (13-06-0445-21)						
Aroclor-1262	2.5		1.0	ug/smpl	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

Page 1 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L1D1-G	13-06-0445-4-A	06/05/13 21:08	Wipe	GC 31	06/10/13	06/13/13 01:28	130610L09

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	93	50-130	
2,4,5,6-Tetrachloro-m-Xylene	85	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	104	50-130	
2,4,5,6-Tetrachloro-m-Xylene	84	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L1D3-G	13-06-0445-6-A	06/05/13 21:12	Wipe	GC 31	06/10/13	06/13/13 02:06	130610L09

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	107	50-130	
2,4,5,6-Tetrachloro-m-Xylene	94	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	81	50-130	
2,4,5,6-Tetrachloro-m-Xylene	87	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L1D5-G	13-06-0445-8-A	06/05/13 21:30	Wipe	GC 31	06/10/13	06/13/13 02:45	130610L09

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	82	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	674	50-130	2,7
2,4,5,6-Tetrachloro-m-Xylene	88	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

Page 4 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L2D1-G	13-06-0445-10-A	06/05/13 21:04	Wipe	GC 31	06/10/13	06/13/13 03:42	130610L09

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	86	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	99	50-130	
2,4,5,6-Tetrachloro-m-Xylene	90	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L2D4-G	13-06-0445-12-A	06/05/13 20:55	Wipe	GC 31	06/10/13	06/13/13 04:20	130610L09

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	99	50-130	
2,4,5,6-Tetrachloro-m-Xylene	73	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	107	50-130	
2,4,5,6-Tetrachloro-m-Xylene	85	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L2D6-G	13-06-0445-14-A	06/05/13 20:56	Wipe	GC 31	06/10/13	06/14/13 10:58	130610L09

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	1.1	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	105	50-130	
2,4,5,6-Tetrachloro-m-Xylene	110	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	102	50-130	
2,4,5,6-Tetrachloro-m-Xylene	75	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L2D8-G	13-06-0445-16-A	06/05/13 20:51	Wipe	GC 31	06/10/13	06/13/13 05:37	130610L09

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	119	50-130	
2,4,5,6-Tetrachloro-m-Xylene	90	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	10	10	
Aroclor-1221	ND	10	10	
Aroclor-1232	ND	10	10	
Aroclor-1242	ND	10	10	
Aroclor-1248	ND	10	10	
Aroclor-1254	ND	10	10	
Aroclor-1260	ND	10	10	
Aroclor-1262	65	10	10	
Aroclor-1268	ND	10	10	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	152	50-130	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	108	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L2D9-Dup-G	13-06-0445-18-A	06/05/13 20:51	Wipe	GC 31	06/10/13	06/13/13 06:15	130610L09

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	229	50-130	2,7
2,4,5,6-Tetrachloro-m-Xylene	86	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	114	50-130	
2,4,5,6-Tetrachloro-m-Xylene	79	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L2D11-G	13-06-0445-20-A	06/05/13 20:36	Wipe	GC 31	06/10/13	06/13/13 06:53	130610L09

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	105	50-130	
2,4,5,6-Tetrachloro-m-Xylene	86	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	2.5	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	148	50-130	2,7
2,4,5,6-Tetrachloro-m-Xylene	71	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-582-212	N/A	Soil	GC 31	06/10/13	06/13/13 00:31	130610L09

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	76	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L1-Rinse	13-06-0445-1-A	06/05/13 22:25	Aqueous	GC 58	06/10/13	06/14/13 16:05	130610L05

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	96	50-135	
2,4,5,6-Tetrachloro-m-Xylene	88	50-135	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	100	50-135	
2,4,5,6-Tetrachloro-m-Xylene	89	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-L2-Rinse	13-06-0445-3-A	06/05/13 22:37	Aqueous	GC 58	06/10/13	06/14/13 16:41	130610L05

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	109	50-135	
2,4,5,6-Tetrachloro-m-Xylene	101	50-135	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	81	50-135	
2,4,5,6-Tetrachloro-m-Xylene	73	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Quality Control - Spike/Spike Duplicate

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3540C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID		Matrix		Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number			
B10-L2D6-G		Wipe		GC 31	06/10/13	06/13/13 00:50	130610S09			
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	2.000	1.976	99	1.864	93	50-135	6	0-25	
Aroclor-1260	ND	2.000	2.505	125	2.477	124	50-135	1	0-25	

Quality Control - Spike/Spike Duplicate

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/07/13
Work Order: 13-06-0445
Preparation: EPA 3510C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID		Matrix		Instrument	Date Prepared		Date Analyzed		MS/MSD Batch Number	
B10-L1-Rinse		Aqueous		GC 58	06/10/13		06/14/13 15:29		130610S05	
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	2.000	2.521	126	2.358	118	50-135	7	0-25	
Aroclor-1260	ND	2.000	2.218	111	2.125	106	50-135	4	0-25	

Quality Control - LCS

ERM - West
 1277 Treat Boulevard, Suite 500
 Walnut Creek, CA 94597-7989

Date Received: 06/07/13
 Work Order: 13-06-0445
 Preparation: EPA 3540C
 Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number	
099-12-582-212	Soil	GC 31	06/13/13 00:12	130610L09	
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	1.919	96	50-135	
Aroclor-1260	2.000	1.624	81	50-135	

Quality Control - LCS

ERM - West
 1277 Treat Boulevard, Suite 500
 Walnut Creek, CA 94597-7989

Date Received: 06/07/13
 Work Order: 13-06-0445
 Preparation: EPA 3510C
 Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number	
099-12-640-9	Aqueous	GC 58	06/14/13 15:11	130610L05	
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	2.490	124	50-135	
Aroclor-1260	2.000	2.452	123	50-135	

Sample Analysis Summary Report

Work Order: 13-06-0445

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8082	EPA 3510C	669	GC 58	1
EPA 8082	EPA 3540C	669	GC 31	1


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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	For any analysis identified as a "field" test with a holding time (HT) <= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Environmental Resources
Management

CHAIN OF CUSTODY RECORD

NO: 07737

13-06-0445

1277 Treat Boulevard, Suite 500 • Walnut Creek, CA • 94597 • (925) 946-0455 • FAX (925) 946-9968

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PROJECT #		PROJECT NAME		RECEIVING LABORATORY		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS	
PROJECT #		PROJECT NAME		RECEIVING LABORATORY		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS	
PROJECT #		PROJECT NAME		RECEIVING LABORATORY		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS	
6163462	UNITED STATE PCB'S	(SIGNATURE)		(SIGNATURE)							
K. Muehler											
CAL SCIENCE											
SAMPLE ID.	DATE	TIME	COMP	SAMPLING METHOD	PREP	WIP	SAMPLING VOLUME				
B10-L1-Rinse	6/5/13	2225	✓	BALER	✓	Y	1 LITER	X		X	
B10-L2-Rinse		2225	✓	"	✓	Y	"	X		X	
DUP											
B10-L2-Rinse		2237	✓	BALER	✓	Y	1 LITER	X		X	
B10-M1-Rinse		2205	✓	"	✓	Y	"	X		X	
B10-M1-D-Rinse		2225	✓	"	✓	Y	"	X		X	
B10-L1-DZ-Rinse		2108	✓	WIFE	✓	Y	wipe	X		X	
B10-L1-D2-Rinse		2110	✓	"	✓	Y	"	X		X	
B10-L1-D3-Rinse		2112	✓	"	✓	Y	"	X		X	
B10-L1-D4-Rinse		2155	✓	"	✓	Y	"	X		X	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	FIELD REMARKS			
K. Muehler		6/6/13	1120	CEL		6/6/13	1120	EPA 8082. PROS. SPECIFIC AROCHLORS			
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	SEE BOB STEARNS.			
CEL		6/6/13	1730	CEL		6/6/13	1000	SOXHLET EXTRACTION FOR WIPES.			
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME				
REMARKS ON SAMPLE RECEIPT				ERM REMARKS							
<input type="checkbox"/> BOTTLE INTACT		<input type="checkbox"/> CUSTODY SEALS		<input type="checkbox"/> CHILLED							
<input type="checkbox"/> PRESERVED		<input type="checkbox"/> SEALS INTACT		<input type="checkbox"/> SEE REMARKS							
SEND REPORT TO:											
Kevin. Muehler@erm.com											
Terri. Herson@erm.com											

CHAIN OF CUSTODY RECORD

1277 Treat Boulevard, Suite 500 • Walnut Creek, CA • 94597 • (925) 946-0455 • FAX (925) 946-9968

PROJECT #		PROJECT NAME						
0163462		UNITED S Fmc PCB's						
SAMPLER: (PRINT NAME)		(SIGNATURE)						
K. Mucha								
RECEIVING LABORATORY								
CALSCIENCE								
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICF (%)	SAMPLING VOLUME
B10-L2D5-9	6/5/13	2130		X	WIPE	-	Y	WIPE
B10-L2D6-9	6/5/13	2133		X	"	-	Y	"
B10-L2D1-G	6/5/13	2104		X	"	-	Y	"
B10-L2D2-G	6/5/13	2102		X	"	-	Y	"
B10-L2D4-G	6/5/13	2058		X	"	-	Y	"
B10-L2D5-G	6/5/13	2127		X	"	-	Y	"
B10-L2D6-G	6/5/13	2056		X	"	-	Y	"
B10-L2D7-G	6/5/13	2047		X	"	-	Y	"
B10-L2D8-G	6/5/13	2051		X	"	-	Y	"
B10-L2D9-G	6/5/13	2044		X	"	-	Y	"
RELINQUISHED BY (SIGNATURE)		DATE	TIME	SAMPLING METHOD		PRESERVATIVE	ICF (%)	SAMPLING VOLUME
		6/6/13	1120	WIPE		-	Y	WIPE
RELINQUISHED BY (SIGNATURE)		DATE	TIME	SAMPLING METHOD		PRESERVATIVE	ICF (%)	SAMPLING VOLUME
		6/6/13	1730	"		-	Y	"
RELINQUISHED BY (SIGNATURE)		DATE	TIME	SAMPLING METHOD		PRESERVATIVE	ICF (%)	SAMPLING VOLUME
		6/6/13	1730	"		-	Y	"
REMARKS ON SAMPLE RECEIPT				ERM REMARKS				
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED <input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS								

PROJECT #		PROJECT NAME		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS	
0163462		UNITED SFMC - PCB's		1		WATER		<div>REQUESTED PARAMETERS</div> <div><div>WATER</div><div>GAS</div></div>	
SAMPLER: (PRINT NAME)		(SIGNATURE)		1		SOIL			
K. Mucha				1					
				1					
				1					
				1					
RECEIVING LABORATORY		CALS science		1					
SAMPLE ID.	DATE	TIME	COMP	SAMPLING METHOD	PRESERVATIVE	TO CONTAINER	SAMPLING VOLUME		
010-L2D10-6	6/13/13	2051	X	WIPE	-	X	WIPE	EPA 8082	
010-L2D10-6	6/13/13	2040	X	"	-	X	"		
010-L2D11-6	6/13/13	2036	X	"	-	X	"		
010-L2D12-6	6/13/13	2039	X	"	-	X	"		
010-M5-6	6/13/13	2056	X	"	-	X	"	Matrix SPIKE	
010-M5D-6	6/13/13	2056	X	"	-	X	"	Matrix SPIKE Dup.	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	FIELD REMARKS	
		6/13/13	1120	G. L. OEL		6/13/13	1120	Proj. Specific Aroclors * SEE BOB STEARN'S	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME		
		6/13/13	1730			6/17/13	1000	# SOXHALET-EXTRACTION FOR WIPES.	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME		
		6/13/13	1730			6/17/13	1000		
REMARKS ON SAMPLE RECEIPT		ERM REMARKS		ERM REMARKS		ERM REMARKS		SEND REPORT TO: Kevin. Mucha@erm.com TERRI. Herson@erm.com	
<input type="checkbox"/> BOTTLE INTACT		<input type="checkbox"/> CUSTODY SEALS		<input type="checkbox"/> CHILLED		<input type="checkbox"/> SEE REMARKS			
<input type="checkbox"/> PRESERVED		<input type="checkbox"/> SEALS INTACT		<input type="checkbox"/> SEE REMARKS		<input type="checkbox"/> SEE REMARKS			

		< WebShip > > > > > 800-322-5555 www.gso.com		0445
Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520		Tracking #: 521986819 		NPS
Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841		ORC GARDEN GROVE		A
COD: \$0.00		D92841A  12871488		
Reference: ERM		Signature Type: SIGNATURE REQUIRED		
Delivery Instructions:		Print Date : 06/06/13 15:44 PM		

Package 1 of 1

Send Label To Printer

☒ Print All

Edit Shipment

Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email

Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.

Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: ERM

DATE: 06/07/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.4 °C - 0.2 °C (CF) = 2.2 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Initial: JP

CUSTODY SEALS INTACT:

☒ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A

Initial: JP

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Initial: WS

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/> <u>WIC 60713</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Water: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☒ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister **Other:** ☐ _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** WS

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** JP

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered **Scanned by:** JP

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired – list sample ID(s) and test
- ☐ Insufficient quantities for analysis – list test
- ☐ Improper container(s) used – list test
- ☐ Improper preservative used – list test
- ☐ No preservative noted on COC or label – list test & notify lab
- ☐ Sample labels illegible – note test/container type
- ☒ Sample label(s) do not match COC – Note in comments
 - ☐ Sample ID
 - ☒ Date and/or Time Collected
 - ☐ Project Information
 - ☐ # of Container(s)
 - ☐ Analysis
- ☐ Sample container(s) compromised – Note in comments
 - ☐ Water present in sample container
 - ☐ Broken
- ☐ Sample container(s) not labeled
- ☐ Air sample container(s) compromised – Note in comments
 - ☐ Flat
 - ☐ Very low in volume
 - ☐ Leaking (Not transferred - duplicate bag submitted)
 - ☐ Leaking (transferred into Calscience Tedlar® Bag*)
 - ☐ Leaking (transferred into Client's Tedlar® Bag*)
- ☐ Other:

(18) to (21)
Collection date is 6/5/13

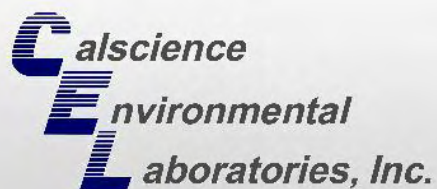
HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

[illegible]

Comments: _____

*Transferred at Client's request.

Initial / Date: WY 06 / 07 / 13



CALSCIENCE

WORK ORDER NUMBER: 13-06-1528

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ERM - West

Client Project Name: UNITED SFMC PCB's / 0163462

Attention: Kevin Mucha
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Approved for release on 07/5/2013 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



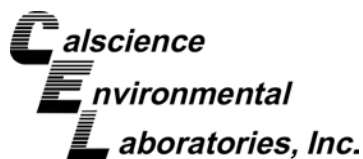
Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number: 13-06-1528

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Work Order Narrative

Work Order: 13-06-1528

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/22/13. They were assigned to Work Order 13-06-1528.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT \leq 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

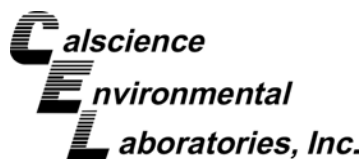
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

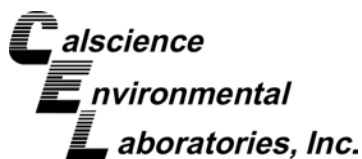
Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-06-1528
Project Name: UNITED SFMC PCB's / 0163462
PO Number:
Date Received: 06/22/13

Attn: Kevin Mucha

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B15-L3D1-G	13-06-1528-1	06/19/13 19:22	1	Wipe
B15-L7D2-G	13-06-1528-2	06/19/13 19:31	1	Wipe
B15-L8D1-G	13-06-1528-3	06/19/13 19:35	1	Wipe
B15-L10D1-G	13-06-1528-4	06/19/13 19:53	1	Wipe
B15-L10D2-G	13-06-1528-5	06/19/13 20:03	1	Wipe
B15-L9D2-G	13-06-1528-6	06/19/13 20:12	1	Wipe
B15-L8D2-G	13-06-1528-7	06/19/13 20:16	1	Wipe
B15-L7D5-G	13-06-1528-8	06/19/13 20:20	1	Wipe
B15-L10D3-G	13-06-1528-9	06/19/13 20:32	1	Wipe
B15-L9D3-G	13-06-1528-10	06/19/13 20:38	1	Wipe
B15-L7D6-G	13-06-1528-11	06/19/13 20:47	1	Wipe
B15-L10D4-G	13-06-1528-12	06/19/13 20:52	1	Wipe
B15-L7D8-G	13-06-1528-13	06/19/13 20:57	1	Wipe
B15-L7D8-G-DUP	13-06-1528-14	06/19/13 20:57	1	Wipe
B15-L7D7-G	13-06-1528-15	06/19/13 21:02	1	Wipe
B15-L3D4-G	13-06-1528-16	06/19/13 21:07	1	Wipe
B15-L1D2-G	13-06-1528-17	06/20/13 20:40	1	Wipe
B15-L4D2-G	13-06-1528-18	06/20/13 19:40	1	Wipe
B15-L2D2-G	13-06-1528-19	06/20/13 20:14	1	Wipe
B15-L1D3-G	13-06-1528-20	06/20/13 20:11	1	Wipe
B15-L1D1-G	13-06-1528-21	06/20/13 20:08	1	Wipe
B15-L4D3-G	13-06-1528-22	06/20/13 19:44	1	Wipe
B15-L2D3-G	13-06-1528-23	06/20/13 19:32	3	Wipe
B15-L3-Rinse	13-06-1528-24	06/20/13 19:55	1	Aqueous
B15-L1-Rinse	13-06-1528-25	06/20/13 20:48	1	Aqueous
B15-L2-Rinse	13-06-1528-26	06/20/13 21:40	1	Aqueous
B15-L2-Rinse	13-06-1528-27	06/20/13 21:40	1	Aqueous

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Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L3D1-G	13-06-1528-1-A	06/19/13 19:22	Wipe	GC 31	06/24/13	06/26/13 13:49	130624L11

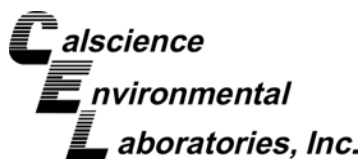
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	92	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	50-130	
2,4,5,6-Tetrachloro-m-Xylene	97	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L8D1-G	13-06-1528-3-A	06/19/13 19:35	Wipe	GC 31	06/24/13	06/26/13 14:27	130624L11

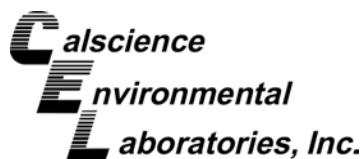
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	50-130	
2,4,5,6-Tetrachloro-m-Xylene	85	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	50-130	
2,4,5,6-Tetrachloro-m-Xylene	81	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L10D2-G	13-06-1528-5-A	06/19/13 20:03	Wipe	GC 31	06/24/13	06/26/13 15:05	130624L11

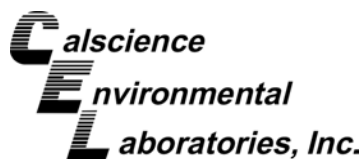
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	116	50-130	
2,4,5,6-Tetrachloro-m-Xylene	93	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	111	50-130	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L8D2-G	13-06-1528-7-A	06/19/13 20:16	Wipe	GC 31	06/24/13	06/26/13 15:44	130624L11

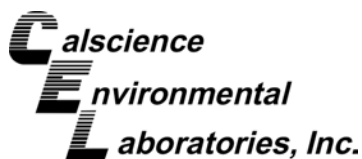
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	112	50-130	
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	110	50-130	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L10D3-G	13-06-1528-9-A	06/19/13 20:32	Wipe	GC 31	06/24/13	06/26/13 16:22	130624L11

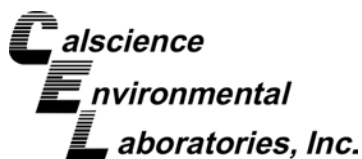
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	107	50-130	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	111	50-130	
2,4,5,6-Tetrachloro-m-Xylene	98	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L7D6-G	13-06-1528-11-A	06/19/13 20:47	Wipe	GC 31	06/24/13	06/26/13 17:19	130624L11

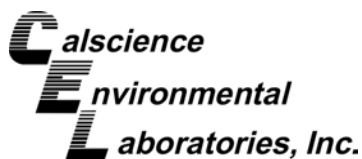
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	111	50-130	
2,4,5,6-Tetrachloro-m-Xylene	102	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	112	50-130	
2,4,5,6-Tetrachloro-m-Xylene	102	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L7D8-G	13-06-1528-13-A	06/19/13 20:57	Wipe	GC 31	06/24/13	06/26/13 17:57	130624L11

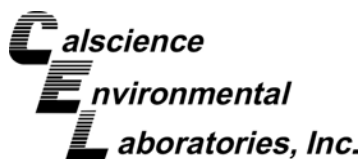
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	104	50-130	
2,4,5,6-Tetrachloro-m-Xylene	86	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	107	50-130	
2,4,5,6-Tetrachloro-m-Xylene	100	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L7D7-G	13-06-1528-15-A	06/19/13 21:02	Wipe	GC 31	06/24/13	06/26/13 18:36	130624L11

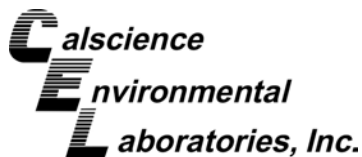
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	106	50-130	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	88	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L1D2-G	13-06-1528-17-A	06/20/13 20:40	Wipe	GC 31	06/24/13	06/26/13 19:14	130624L12

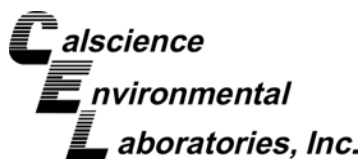
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	50-130	
2,4,5,6-Tetrachloro-m-Xylene	90	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	50-130	
2,4,5,6-Tetrachloro-m-Xylene	93	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L2D2-G	13-06-1528-19-A	06/20/13 20:14	Wipe	GC 31	06/24/13	06/26/13 20:14	130624L12

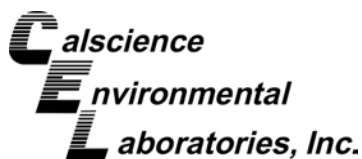
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	84	50-130	
2,4,5,6-Tetrachloro-m-Xylene	88	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	81	50-130	
2,4,5,6-Tetrachloro-m-Xylene	91	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L1D1-G	13-06-1528-21-A	06/20/13 20:08	Wipe	GC 31	06/24/13	06/26/13 20:52	130624L12

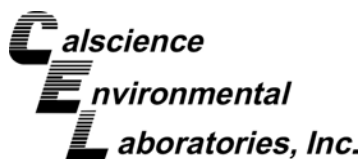
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	50-130	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	50-130	
2,4,5,6-Tetrachloro-m-Xylene	94	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

Page 12 of 13

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L2D3-G	13-06-1528-23-A	06/20/13 19:32	Wipe	GC 31	06/24/13	06/26/13 21:30	130624L12

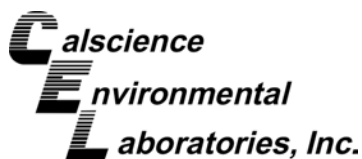
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	50-130	
2,4,5,6-Tetrachloro-m-Xylene	94	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	50-130	
2,4,5,6-Tetrachloro-m-Xylene	89	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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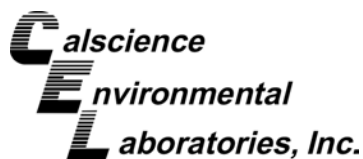
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-582-214	N/A	Soil	GC 31	06/24/13	06/26/13 12:52	130624L12

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	50-130	
2,4,5,6-Tetrachloro-m-Xylene	84	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L3-Rinse	13-06-1528-24-A	06/20/13 19:55	Aqueous	GC 58	06/26/13	06/28/13 00:09	130626L12

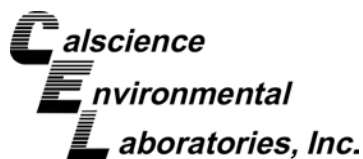
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	50-135	
2,4,5,6-Tetrachloro-m-Xylene	87	50-135	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	45	50-135	2,6
2,4,5,6-Tetrachloro-m-Xylene	88	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L2-Rinse	13-06-1528-26-A	06/20/13 21:40	Aqueous	GC 58	06/26/13	06/28/13 00:45	130626L12

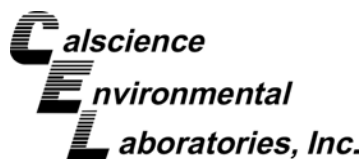
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	51	50-135	
2,4,5,6-Tetrachloro-m-Xylene	91	50-135	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	53	50-135	
2,4,5,6-Tetrachloro-m-Xylene	87	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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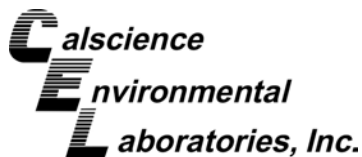
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-640-10	N/A	Aqueous	GC 58	06/26/13	06/27/13 23:51	130626L12

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	50-135	
2,4,5,6-Tetrachloro-m-Xylene	71	50-135	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082

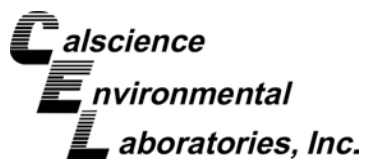
Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix		Instrument		Date Prepared	Date Analyzed	MS/MSD Batch Number			
B15-L2D3-G	Wipe		GC 31		06/24/13	06/26/13 13:11	130624S12			
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	ND	2.000	1.676	84	1.906	95	50-135	13	0-25	
Aroclor-1260	ND	2.000	1.499	75	1.815	91	50-135	19	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082

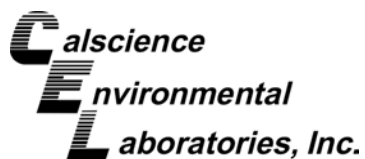
Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix		Instrument		Date Prepared	Date Analyzed		LCS/LCSD Batch Number	
099-12-582-213	Soil		GC 31		06/24/13	06/26/13 11:35		130624L11	
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	1.946	97	1.697	85	50-135	14	0-25	
Aroclor-1260	2.000	1.783	89	1.672	84	50-135	6	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

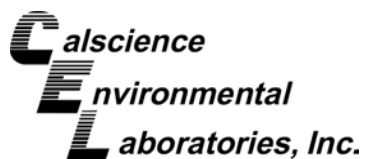
Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3540C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number	
099-12-582-214	Soil	GC 31	06/26/13 12:33	130624L12	
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	1.590	79	50-135	
Aroclor-1260	2.000	1.543	77	50-135	

Return to Contents



Quality Control - LCS/LCSD

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/22/13
Work Order: 13-06-1528
Preparation: EPA 3510C
Method: EPA 8082

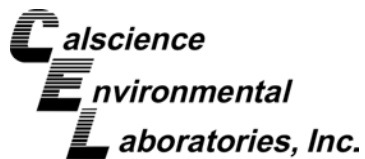
Project: UNITED SFMC PCB's / 0163462

Page 3 of 3

Quality Control Sample ID		Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-640-10		Aqueous	GC 58	06/26/13	06/27/13 23:15	130626L12			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	1.925	96	1.865	93	50-135	3	0-25	
Aroclor-1260	2.000	1.895	95	1.903	95	50-135	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Sample Analysis Summary Report

Work Order: 13-06-1528

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8082	EPA 3510C	669	GC 58	1
EPA 8082	EPA 3540C	669	GC 31	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 13-06-1528

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	For any analysis identified as a "field" test with a holding time (HT) \leq 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Virendra Patel

From: Virendra Patel
Sent: Monday, June 24, 2013 10:14 AM
To: 'Kevin Mucha'; Terri Herson
Cc: Emma Dennison; Bob Stearns; Peter Dunn
Subject: RE: United SFMC PCB's - 13-06-1528 <response requested>

Kevin,

Thank you. We will use the sample label IDs for reference on the report.

Regards,

Virendra Patel
Project Manager
(714) 895-5494


The difference is service

From: Kevin Mucha [<mailto:Kevin.Mucha@erm.com>]
Sent: Monday, June 24, 2013 10:11 AM
To: Virendra Patel; Terri Herson
Cc: Emma Dennison; Bob Stearns; Peter Dunn
Subject: RE: United SFMC PCB's - 13-06-1528 <response requested>

The Sample IDs are correct on the bottles, and one of the B15-L2-Rinse samples should be a dup. Doesn't matter which one. There must have been a transposition error when writing up the COC.

Kevin M. Mucha, P.E., QSD/QSP
Senior Engineer
ERM
1277 Treat Boulevard, Suite 500
Walnut Creek, Ca 94597
T: +1 925 946 0455
T: +1 925 482 3283 (Direct)
F: +1 925 946 9968
M: +1 925 330 3173

kevin.mucha@erm.com
www.erm.com

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Please visit ERM's web site: <http://www.erm.com>

From: Virendra Patel [<mailto:vpatel@calscience.com>]
Sent: Monday, June 24, 2013 9:37 AM
To: Kevin Mucha; Terri Herson
Cc: Emma Dennison; Bob Stearns
Subject: United SFMC PCB's - 13-06-1528 <response requested>
Importance: High

Kevin,

Good Morning. We received some samples over the weekend that do not match up against the COC (see attached copy). I've listed the information below as well as picture of the 4 affected sample bottles. Please review and advise.

ERM - United SFMC PCBs project

CEL Work order: 13-06-1528

COC sample ID	COC collection date/time	Sample label ID	Sample label collection date/time
B15-L1-Rinse	06/20/2013 @ 1955	B15-L3-Rinse	06/20/2013 @ 1955 -- 24
B15-L2-Rinse	06/20/2013 @ 2048	B15-L1-Rinse	06/20/2013 @ 2048 -- 25
B15-L3-Rinse	06/20/2013 @ 2140	B15-L2-Rinse	06/20/2013 @ 2140 -- 26
B15-L3-Rinse	06/20/2013 @ 2140	B15-L2-Rinse	06/20/2013 @ 2140 -- 27

Please advise/call to discuss on how to label/reference these samples.

Regards,

Virendra Patel
Project Manager
(714) 895-5494

The difference is service

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Environmental Resources
Management

CHAIN OF CUSTODY RECORD
13-06-1528

NO: 07734

1277 Treat Boulevard, Suite 500 • Walnut Creek, CA • 94597 • (925) 946-0455 • FAX (925) 946-9968

Page 1 of 3

PROJECT #		PROJECT NAME		REQUESTED PARAMETERS					
0163462		United SMC PCB's							
SAMPLER: (PRINT NAME)		(SIGNATURE)							
Stephen Ferenc									
RECEIVING LABORATORY									
Cal Science									
SAMPLE ID.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVE	WATTE	GAS	SAMPLE VOLUME
B15-L301-G	6/19/13	1922	X	X	wipe	---	X	X	wipe
B15-L702-G	6/19/13	1931	X	X	---	---	X	X	---
B15-L801-G	6/19/13	1935	X	X	---	---	X	X	---
B15-L1001-G	6/19/13	1953	X	X	---	---	X	X	---
B15-L1002-G	6/19/13	2003	X	X	---	---	X	X	---
B15-L902-G	6/19/13	2012	X	X	---	---	X	X	---
B15-L802-G	6/19/13	2016	X	X	---	---	X	X	---
B15-L705-G	6/19/13	2020	X	X	---	---	X	X	---
B15-L1003-G	6/19/13	2032	X	X	---	---	X	X	---
B15-L903-G	6/19/13	2038	X	X	---	---	X	X	---
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	FIELD REMARKS	
		6/20/13	1800			6/20/13	2300	EPA 8082 Project Specific Aroclors *See Bob Stearns	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME		
		6/21/13	1955	Tanomally, CEC		6/21/13	1445	*Sox HLET Extraction for wipes	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME		
Tanomally To GSO		6/21/13	1730			6/21/13	0920		
REMARKS ON SAMPLE RECEIPT				ERM REMARKS					
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED									
<input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS									
SEND REPORT TO:									
Kevin.mucha@ERM.com									
Terri.herson@ERM.com									

Environmental Resources
Management

CHAIN OF CUSTODY RECORD

NO: 07731

Page 2 of 3

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PROJECT #		PROJECT NAME		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS					
PROJECT #		PROJECT NAME		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS					
PROJECT #		PROJECT NAME		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS					
0163462		United SFCU PCB's		1		WATER		EPA 8082 Project Specific Analyzers					
Stephen Ferencz		(SIGNATURE)		1		SOIL		See Bob Stearns					
Cal Science		(SIGNATURE)		1		GAS		SOX HLET extension for wipes					
RECEIVING LABORATORY		RECEIVING LABORATORY		1		GAS		SEND REPORT TO: Kevin.Mucha@ERM.com terri.herson@ERM.com					
SAMPLE ID	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVE	W/VE	SAMPLING VOLUME	DATE	TIME	FIELD REMARKS		
11 B15-L706-G	6/19/13	2047		X	wipe	-	-	wipe	6/20/13	2300	EPA 8082 Project Specific Analyzers		
12 B15-L104-G	6/19/13	2052		X		-	-		6/24/13	1445	See Bob Stearns		
13 B15-L708-G	6/19/13	2057		X		-	-		6/24/13	1445	SOX HLET extension for wipes		
14 B15-L708-G	6/19/13	2057		X		-	-		6/24/13	1445			
15 B15-L707-G	6/19/13	2102		X		-	-		6/24/13	1445			
16 B15-L304-G	6/19/13	2107		X		-	-		6/24/13	1445			
17 B15-L102-G	6/20/13	2040		X		-	-		6/24/13	1445			
18 B15-L402-G	6/20/13	1940		X		-	-		6/24/13	1445			
19 B15-L202-G	6/20/13	2014		X		-	-		6/24/13	1445			
20 B15-L103-G	6/20/13	2011		X		-	-		6/24/13	1445			
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE		TIME		FIELD REMARKS	
Stephen Ferencz		6/20/13		2300		K. Mucha		6/20/13		2300		EPA 8082 Project Specific Analyzers	
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE		TIME		FIELD REMARKS	
K. Mucha		6/24/13		1445		To Orally CCR		6/24/13		1445		See Bob Stearns	
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE		TIME		FIELD REMARKS	
To Orally CCR		6/24/13		1730		g		6/24/13		0920		SOX HLET extension for wipes	
REMARKS ON SAMPLE RECEIPT		REMARKS ON SAMPLE RECEIPT		REMARKS ON SAMPLE RECEIPT		REMARKS ON SAMPLE RECEIPT		REMARKS ON SAMPLE RECEIPT		REMARKS ON SAMPLE RECEIPT		REMARKS ON SAMPLE RECEIPT	
BOTTLE INTACT		CUSTODY SEALS		CHILLED		BOTTLE INTACT		CUSTODY SEALS		CHILLED		BOTTLE INTACT	
PRESERVED		SEALS INTACT		SEE REMARKS		PRESERVED		SEALS INTACT		SEE REMARKS		PRESERVED	

PROJECT #		PROJECT NAME		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS	
0163462		United S FMC PCB's		1		W G A S S O I L			
SAMPLER: (PRINT NAME)		(SIGNATURE)							
Stephen Ferencz									
RECEIVING LABORATORY									
Cal Science									
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVE VATIVE	ICE	SAMPLING VOLUME	
21 B15-1101-G	6/20/13	2008		X	wipe	-		wipe	
22 B15-1403-G	6/20/13	1944		X		-			
23 B15-1203-G	6/20/13	1932		X		-			
24 B15-1203-G	6/20/13	1932		X		-			
25 B15-1203-G	6/20/13	1932		X		-			
26 B15-1203-G	6/20/13	1932		X		-			
27 B15-1203-G	6/20/13	1932		X		-			
28 B15-1203-G	6/20/13	1932		X		-			
29 B15-1203-G	6/20/13	1932		X		-			
30 B15-1203-G	6/20/13	1932		X		-			
31 B15-1203-G	6/20/13	1932		X		-			
32 B15-1203-G	6/20/13	1932		X		-			
33 B15-1203-G	6/20/13	1932		X		-			
34 B15-1203-G	6/20/13	1932		X		-			
35 B15-1203-G	6/20/13	1932		X		-			
36 B15-1203-G	6/20/13	1932		X		-			
37 B15-1203-G	6/20/13	1932		X		-			
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE TIME	
		6/20/13		2300		K. L. L.		6/20/13 2300	
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE TIME	
		6/21/13		1944		Tom O'Malley		6/21/13 1944	
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE TIME	
		6/21/13		1730		Tom O'Malley		6/21/13 1730	
REMARKS ON SAMPLE RECEIPT									
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED <input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS									
ERM REMARKS									
EPA 8082 Project Specific Attachments * See B-8 STAINS * SOXHLET extraction for wipes									
SEND REPORT TO: Kevin, Mucha @ ERM, com bern.herson@ERM, com									

1528

 <div style="text-align: right;"> < WebShip > > > > 800-322-5555 www.gso.com </div>		
Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520	Tracking #: 522107767 	SDS <div style="border: 1px solid black; padding: 5px; font-size: 2em; text-align: center;">A</div>
Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841	<div style="font-size: 3em; font-weight: bold;">ORC</div> <div style="font-size: 1.5em; font-weight: bold;">GARDEN GROVE</div>	
COD: \$0.00	<div style="font-size: 2em; font-weight: bold;">D92841A</div>  13368859	
Reference: ERM		
Delivery Instructions:		
Signature Type: SIGNATURE REQUIRED		

Print Date : 06/21/13 15:33 PM

Package 1 of 1

Send Label To Printer	<input checked="" type="checkbox"/> Print All	Edit Shipment	Finish
-----------------------	---	---------------	--------

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email	Create Return Label
----------------------	---------------------

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

WORK ORDER #: **13-06-1528**

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: ERM

DATE: 06/22/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.8 °C - 0.2 °C (CF) = 2.6 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Initial: YL

CUSTODY SEALS INTACT:

☒ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A

Initial: YL

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Initial: YS

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Water: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☒ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister **Other:** ☒ 4ozCGJ **Trip Blank Lot#:** _____ **Labeled/Checked by:** YS

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** YL

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered **Scanned by:** YL

WORK ORDER #: 13-06-1528

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:**Comments:**

- ☐ Sample(s) NOT RECEIVED but listed on COC
☐ Sample(s) received but NOT LISTED on COC
☐ Holding time expired – list sample ID(s) and test
☐ Insufficient quantities for analysis – list test
☐ Improper container(s) used – list test
☐ Improper preservative used – list test
☐ No preservative noted on COC or label – list test & notify lab
☐ Sample labels illegible – note test/container type
☒ Sample label(s) do not match COC – Note in comments
 - ☒ Sample ID
 - ☐ Date and/or Time Collected
 - ☐ Project Information
 - ☐ # of Container(s)
 - ☐ Analysis
 - ☐ Sample container(s) compromised – Note in comments
 - ☐ Water present in sample container
 - ☐ Broken
 - ☐ Sample container(s) not labeled
 - ☐ Air sample container(s) compromised – Note in comments
 - ☐ Flat
 - ☐ Very low in volume
 - ☐ Leaking (Not transferred - duplicate bag submitted)
 - ☐ Leaking (transferred into Calscience Tedlar® Bag*)
 - ☐ Leaking (transferred into Client's Tedlar® Bag*)
 - ☐ Other: _____

-24 to -27 sample IDs
do not match COC, Sampling
date & time match.

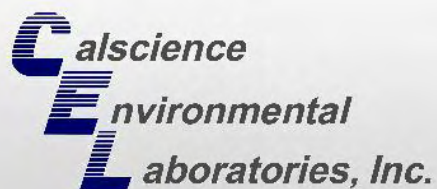
HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: 06/24/13



CALSCIENCE

WORK ORDER NUMBER: 13-06-1697

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ERM - West

Client Project Name: UNITED SFMC PCB's / 0163462

Attention: Kevin Mucha
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Approved for release on 07/09/2013 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



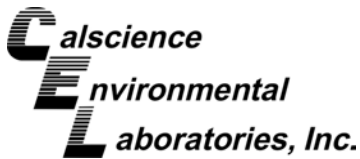
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NELAP ID: 03220CA | DoD-ELAP ID: L10-41 | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

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 Work Order Number: 13-06-1697

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Work Order Narrative

Work Order: 13-06-1697

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/26/13. They were assigned to Work Order 13-06-1697.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT \leq 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

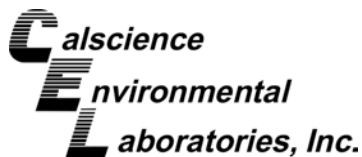
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

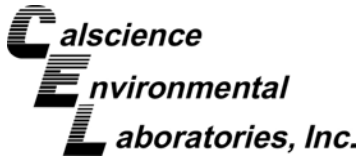
Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-06-1697
Project Name: UNITED SFMC PCB's / 0163462
PO Number:
Date Received: 06/26/13

Attn: Kevin Mucha

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B15-L4-Rinse	13-06-1697-1	06/24/13 16:36	3	Aqueous
B15-L4-Rinse-Dup	13-06-1697-2	06/24/13 16:36	1	Aqueous
B15-L5-Rinse	13-06-1697-3	06/24/13 18:00	1	Aqueous
B15-L6-Rinse	13-06-1697-4	06/24/13 19:00	1	Aqueous
B15-L7-Rinse	13-06-1697-5	06/24/13 19:49	1	Aqueous
B15-L8-Rinse	13-06-1697-6	06/24/13 21:03	1	Aqueous
B15-L9-Rinse	13-06-1697-7	06/24/13 21:44	1	Aqueous
B15-L10-Rinse	13-06-1697-8	06/24/13 22:47	1	Aqueous
B15-L4D5-G	13-06-1697-9	06/21/13 15:35	1	Wipe
B15-L5D1-G	13-06-1697-10	06/21/13 15:25	1	Wipe
B15-L5D2-G	13-06-1697-11	06/21/13 15:28	1	Wipe
B15-L6D1-G	13-06-1697-12	06/21/13 15:46	1	Wipe
B15-L6D2-G	13-06-1697-13	06/21/13 15:32	1	Wipe
B15-L2D1-G	13-06-1697-14	06/21/13 15:51	1	Wipe
B15-L2D1-G-DUP	13-06-1697-15	06/21/13 15:51	1	Wipe
B15-L7D1-G	13-06-1697-16	06/21/13 15:42	1	Wipe
B15-L3D2-G	13-06-1697-17	06/21/13 15:38	1	Wipe
B15-L3D2-G-DUP	13-06-1697-18	06/21/13 15:38	1	Wipe

Return to Contents



Detections Summary

Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-06-1697
Project Name: UNITED SFMC PCB's / 0163462
Received: 06/26/13

Attn: Kevin Mucha

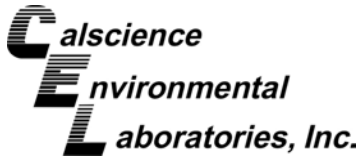
Page 1 of 1

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
B15-L4-Rinse (13-06-1697-1)						
Aroclor-1254	5.5		1.0	ug/L	EPA 8082	EPA 3510C
Aroclor-1260	4.9		1.0	ug/L	EPA 8082	EPA 3510C
B15-L4-Rinse-Dup (13-06-1697-2)						
Aroclor-1254	5.9		1.0	ug/L	EPA 8082	EPA 3510C
Aroclor-1260	4.4		1.0	ug/L	EPA 8082	EPA 3510C
B15-L5-Rinse (13-06-1697-3)						
Aroclor-1254	1.8		1.0	ug/L	EPA 8082	EPA 3510C
B15-L6-Rinse (13-06-1697-4)						
Aroclor-1254	2.0		1.0	ug/L	EPA 8082	EPA 3510C
B15-L7-Rinse (13-06-1697-5)						
Aroclor-1254	6.5		1.0	ug/L	EPA 8082	EPA 3510C
B15-L8-Rinse (13-06-1697-6)						
Aroclor-1254	1.3		1.0	ug/L	EPA 8082	EPA 3510C
B15-L9-Rinse (13-06-1697-7)						
Aroclor-1254	4.5		1.0	ug/L	EPA 8082	EPA 3510C
B15-L10-Rinse (13-06-1697-8)						
Aroclor-1254	1.5		1.0	ug/L	EPA 8082	EPA 3510C
B15-L6D2-G (13-06-1697-13)						
Aroclor-1254	4.7		1.0	ug/smpl	EPA 8082	EPA 3540C
Aroclor-1260	1.3		1.0	ug/smpl	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L4D5-G	13-06-1697-9-A	06/21/13 15:35	Wipe	GC 31	06/27/13	07/01/13 18:00	130627L05

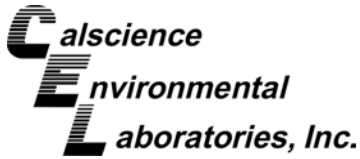
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	104	50-130	
2,4,5,6-Tetrachloro-m-Xylene	86	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	50-130	
2,4,5,6-Tetrachloro-m-Xylene	85	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

Page 2 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L5D2-G	13-06-1697-11-A	06/21/13 15:28	Wipe	GC 31	06/27/13	07/01/13 18:38	130627L05

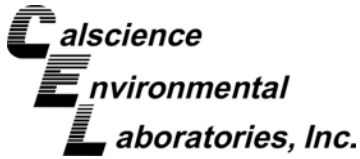
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	105	50-130	
2,4,5,6-Tetrachloro-m-Xylene	85	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	100	50-130	
2,4,5,6-Tetrachloro-m-Xylene	79	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L6D2-G	13-06-1697-13-A	06/21/13 15:32	Wipe	GC 31	06/27/13	07/01/13 20:32	130627L05

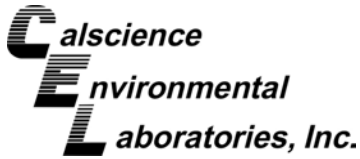
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	4.7	1.0	1	
Aroclor-1260	1.3	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	99	50-130	
2,4,5,6-Tetrachloro-m-Xylene	80	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	102	50-130	
2,4,5,6-Tetrachloro-m-Xylene	84	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L2D1-G-DUP	13-06-1697-15-A	06/21/13 15:51	Wipe	GC 31	06/27/13	07/01/13 21:10	130627L05

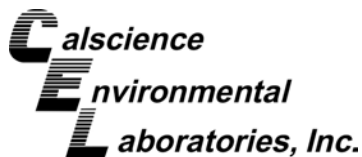
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	97	50-130	
2,4,5,6-Tetrachloro-m-Xylene	78	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	91	50-130	
2,4,5,6-Tetrachloro-m-Xylene	87	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L3D2-G	13-06-1697-17-A	06/21/13 15:38	Wipe	GC 31	06/27/13	07/01/13 21:49	130627L05

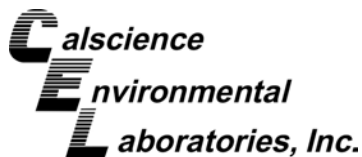
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	87	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	89	50-130	
2,4,5,6-Tetrachloro-m-Xylene	78	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462

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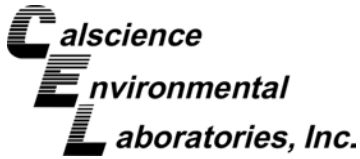
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Method Blank	099-12-582-216	N/A	Soil	GC 31	06/27/13	07/01/13 17:41	130627L05

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	50-130	
2,4,5,6-Tetrachloro-m-Xylene	85	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L4-Rinse	13-06-1697-1-A	06/24/13 16:36	Aqueous	GC 58	06/27/13	07/02/13 18:38	130627L09

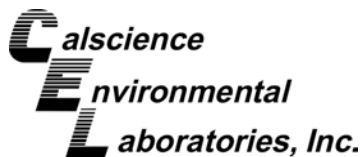
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	5.5	1.0	1	
Aroclor-1260	4.9	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	100	50-135	
2,4,5,6-Tetrachloro-m-Xylene	77	50-135	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	5.9	1.0	1	
Aroclor-1260	4.4	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	50-135	
2,4,5,6-Tetrachloro-m-Xylene	72	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L5-Rinse	13-06-1697-3-A	06/24/13 18:00	Aqueous	GC 58	06/27/13	07/02/13 19:14	130627L09

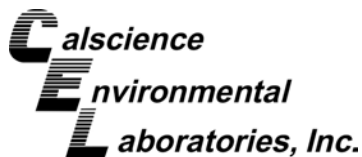
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	1.8	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	50-135	
2,4,5,6-Tetrachloro-m-Xylene	99	50-135	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	2.0	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	50-135	
2,4,5,6-Tetrachloro-m-Xylene	77	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L7-Rinse	13-06-1697-5-A	06/24/13 19:49	Aqueous	GC 58	06/27/13	07/03/13 14:01	130627L09

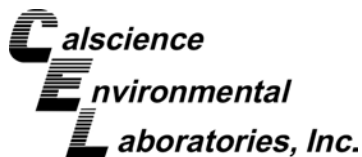
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	6.5	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	50-135	
2,4,5,6-Tetrachloro-m-Xylene	102	50-135	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	1.3	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	50-135	
2,4,5,6-Tetrachloro-m-Xylene	69	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-L9-Rinse	13-06-1697-7-A	06/24/13 21:44	Aqueous	GC 58	06/27/13	07/03/13 14:37	130627L09

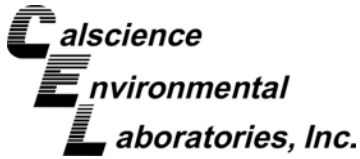
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	4.5	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	97	50-135	
2,4,5,6-Tetrachloro-m-Xylene	77	50-135	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	1.5	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	95	50-135	
2,4,5,6-Tetrachloro-m-Xylene	74	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: UNITED SFMC PCB's / 0163462

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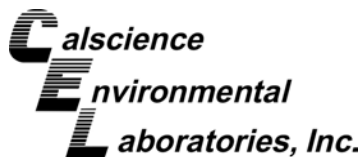
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-640-11	N/A	Aqueous	GC 58	06/27/13	07/02/13 17:45	130627L09

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	50-135	
2,4,5,6-Tetrachloro-m-Xylene	107	50-135	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3510C
Method: EPA 8082

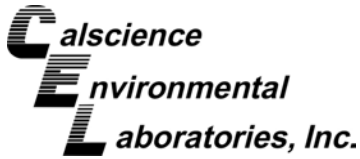
Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number					
B15-L4-Rinse	Aqueous	GC 58	06/27/13	07/02/13 18:03	130627S09					
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	ND	2.000	5.819	291	6.017	301	50-135	3	0-25	3
Aroclor-1260	4.902	2.000	5.649	37	5.461	28	50-135	3	0-25	3

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RPD: Relative Percent Difference. CL: Control Limits



Spike/Spike Duplicate - Surrogate

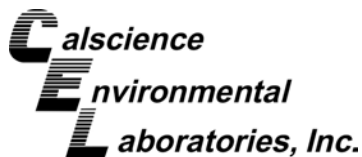
ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3510C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix		Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number	
B15-L4-Rinse	Aqueous		GC 58	06/27/13	07/02/13 18:03	130627S09	
Parameter	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	Qualifiers
Decachlorobiphenyl	0.01000	1.025	102	1.001	100	50-135	
2,4,5,6-Tetrachloro-m-Xylene	0.01000	0.7935	79	0.7939	79	50-135	



Quality Control - LCS/LCSD

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3540C
Method: EPA 8082

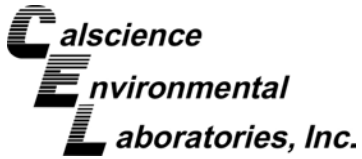
Project: UNITED SFMC PCB's / 0163462

Page 1 of 2

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-582-216	Soil	GC 31	06/27/13	07/01/13 16:45	130627L05				
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	1.664	83	1.648	82	50-135	1	0-25	
Aroclor-1260	2.000	1.477	74	1.622	81	50-135	9	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

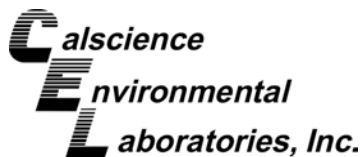
ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3510C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number	
099-12-640-11	Aqueous	GC 58	07/02/13 17:27	130627L09	
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	2.084	104	50-135	
Aroclor-1260	2.000	2.039	102	50-135	



LCS/LCSD - Surrogate

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

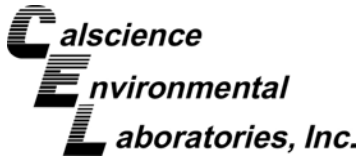
Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3540C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-582-216	Soil	GC 31	06/27/13	07/01/13 16:45	130627L05		
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Decachlorobiphenyl	0.01000	0.8637	86	1.033	103	50-130	
2,4,5,6-Tetrachloro-m-Xylene	0.01000	0.7879	79	0.8982	90	50-130	

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LCS Only - Surrogate

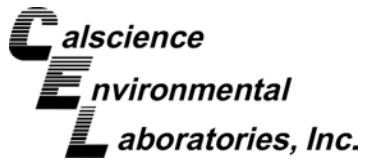
ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 06/26/13
Work Order: 13-06-1697
Preparation: EPA 3510C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462

Page 2 of 2

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-640-11	Aqueous	GC 58	06/27/13 00:00	07/02/13 17:27	130627L09
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Decachlorobiphenyl	0.01000	1.110	111	50-135	
2,4,5,6-Tetrachloro-m-Xylene	0.01000	1.063	106	50-135	



Sample Analysis Summary Report

Work Order: 13-06-1697Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8082	EPA 3510C	669	GC 58	1
EPA 8082	EPA 3540C	669	GC 31	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 13-06-1697

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	For any analysis identified as a "field" test with a holding time (HT) \leq 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Virendra Patel

From: Bob Stearns
Sent: Wednesday, June 26, 2013 4:25 PM
To: Virendra Patel
Cc: Emma Dennison
Subject: FW: United Samples

Virendra- for Work Order 13-06-1696, the MS/MSD for the soils is associated with sample -17. This was not clear on the CoC. The MS/MSD for the wipes were associated with two separate samples. The client has decided not to perform testing for these wipe MS/MSDs, so there will be no MD/MSD for the wipe portion. In addition, the client has instructed us to combine the wipe and aqueous samples for B15 in to a single Work Order. These had been logged in separately, per your instructions (and presumably the client). So, we had to re-label and combine under 13-06-1697. Bottom line, there are just two Work Orders for the samples received this morning.

Please use this as additional documentation to accompany the CoC form in each report.

Thanks,

Bob Stearns
Vice President, Client Services
(714) 895-5494

The difference is service

Environmental Resources
Management

CHAIN OF CUSTODY RECORD

NO: 07727

1277 Treat Boulevard, Suite 500 • Walnut Creek, CA • 94597 • (925) 946-0455 • FAX (925) 946-9968

Page 1 of 1

PROJECT #		PROJECT NAME		REQUESTED PARAMETERS					
0163462		United SMC PCB'S		13-06-1697 1/2					
SAMPLER: (PRINT NAME)		(SIGNATURE)							
Stephen Ferencz		<i>Stephen Ferencz</i>							
RECEIVING LABORATORY									
C91 Science									
SAMPLE I.D.	DATE	TIME	COMP	SAMPLING METHOD	PREP. METHOD	W/3	SAMPLING VOLUME		
B15-L4-Rinse	6/24/13	1636		X Bailor	None	X	1L		
B15-L4-Rinse - Drip	6/24/13	1636		X		X	1L		
B15-L4-Rinse - PB	6/24/13	1636		X		X	1L		
B15-L4-Rinse - PB	6/24/13	1636		X		X	1L		
B15-L5-Rinse	6/24/13	1900		X		X	1L		
B15-L6-Rinse	6/24/13	1900		X		X	1L		
B15-L7-Rinse	6/24/13	1949		X		X	1L		
B15-L8-Rinse	6/24/13	2103		X		X	1L		
B15-L9-Rinse	6/24/13	2144		X		X	1L		
B15-L10-Rinse	6/24/13	2247		X		X	1L		
RELINQUISHED BY (SIGNATURE)				DATE	TIME	RECEIVED BY	DATE	TIME	FIELD REMARKS
<i>Stephen Ferencz</i>				6/24/13	2300	<i>Tom Ormally</i>	6/24/13	2300	EPA 8082 Project specific Aroclors
RELINQUISHED BY (SIGNATURE)				DATE	TIME	RECEIVED BY	DATE	TIME	
<i>Tom Ormally</i>				6/25/13	1930	<i>Tom Ormally, CER</i>	6/27/13	1430	A SEE BOB STEARNS
RELINQUISHED BY (SIGNATURE)				DATE	TIME	RECEIVED BY	DATE	TIME	
<i>Tom Ormally TO C-50</i>				6/27/13	1730	<i>Tom Ormally</i>	6/28/13	1030	
REMARKS ON SAMPLE RECEIPT									
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED									
<input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS									
SEND REPORT TO: Kevin.Mucha@ERM.com Terri.Hesson@ERM.com									





Environmental Resources
Management

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NO: 07728

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PROJECT #		PROJECT NAME		# OF CONTAINERS		MATRIX		REQUESTED PARAMETERS	
SAMPLER: (PRINT NAME)		(SIGNATURE)		C O N T A I N E R S		W A T E R S O I L G A S			
0163462		UNITED STATE PCB'S							
Stephen Ferencz									
Ca/Science		RECEIVING LABORATORY							
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRES VATIVE	ICE	SAMPLING VOLUME	
B15-1405-G	6/21/13	1535	X	X	Wipe	-	-	Wipe	9
B15-1501-G	6/21/13	1525	X	X	-	-	-	-	10
B15-1502-G	6/21/13	1528	X	X	-	-	-	-	11
B15-1601-G	6/21/13	1546	X	X	-	-	-	-	12
B15-1602-G	6/21/13	1532	X	X	-	-	-	-	13
B15-1201-G	6/21/13	1551	X	X	-	-	-	-	14
B15-1201-G-DUP	6/21/13	1551	X	X	-	-	-	-	15
B15-1701-G	6/21/13	1542	X	X	-	-	-	-	16
B15-1302-G	6/21/13	1538	X	X	-	-	-	-	17
B15-1302-G-DUP	6/21/13	1538	X	X	-	-	-	-	18
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	FIELD REMARKS	
		6/24/13	2330	H. J. Hall		6/24/13	2330	* Project Specific Analyzers	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME		
		6/25/13	1930	Toni D. Valley CER		6/25/13	1930	* See Bob Stearns	
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME		
		6/25/13	1730	H. J. Hall		6/25/13	1030	SEXHLET EXTRACTION for wipers	
REMARKS ON SAMPLE RECEIPT									
<input type="checkbox"/> BOTTLE INTACT		<input type="checkbox"/> CUSTODY SEALS		<input type="checkbox"/> CHILLED					
<input type="checkbox"/> PRESERVED		<input type="checkbox"/> SEALS INTACT		<input type="checkbox"/> SEE REMARKS					
SEND REPORT TO:									
Kevin. Mucha@ERN.com									
Terri. Herson@ERN.com									

(1697)



< WebShip > > > > >
800-322-5555 www.gso.com

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
\$0.00

Reference:
ERM

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 522129495

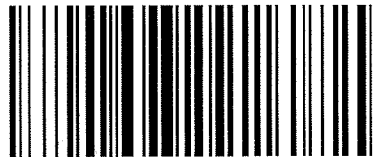


NPS

ORC
GARDEN GROVE

A

D92841A



13450274

Print Date : 06/25/13 15:14 PM

Package 1 of 1

Send Label To Printer

☒ Print All

Edit Shipment

Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email

Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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1697

 <div style="text-align: right;"> < WebShip > > > > > 800-322-5555 www.gso.com </div>	
Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520	Tracking #: 522129162 
Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> ORC GARDEN GROVE </div> <div style="border: 1px solid black; padding: 5px; font-size: 2em; text-align: center;"> A </div> </div>
COD: \$0.00	D92841A  13449722
Reference: ERM Delivery Instructions: Signature Type: SIGNATURE REQUIRED	Print Date : 06/25/13 15:05 PM

Package 1 of 1

Send Label To Printer	<input checked="" type="checkbox"/> Print All	Edit Shipment	Finish
-----------------------	---	---------------	--------

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email	Create Return Label
----------------------	---------------------

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

WORK ORDER #: **13-06-1697**

SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: ERM

DATE: 06/26/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.4 °C - 0.2 °C (CF) = 3.2 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Initial: AP

CUSTODY SEALS INTACT:

☒ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A

Initial: AP

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Initial: AP

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☒ Yes ☐ No ☐ N/A

Sample container label(s) consistent with COC..... ☒ Yes ☐ No ☐ N/A

Sample container(s) intact and good condition..... ☒ Yes ☐ No ☐ N/A

Proper containers and sufficient volume for analyses requested..... ☒ Yes ☐ No ☐ N/A

Analyses received within holding time..... ☒ Yes ☐ No ☐ N/A

pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours... ☐ Yes ☐ No ☒ N/A

Proper preservation noted on COC or sample container..... ☒ Yes ☐ No ☐ N/A

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐ Yes ☐ No ☒ N/A

Tedlar bag(s) free of condensation..... ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Water: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☒ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznn ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: AP

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: AP

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znn: ZnAc₂+NaOH f: Filtered Scanned by: AP

WORK ORDER #: 13-06-1698

SAMPLE RECEIPT FORM

Cooler Yof

CLIENT: ERTM

DATE: 06/26/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.5 °C - 0.2 °C (CF) = 2.3 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Initial: JP

CUSTODY SEALS INTACT:

☒ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A

Initial: JP

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Initial: JP

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Water: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

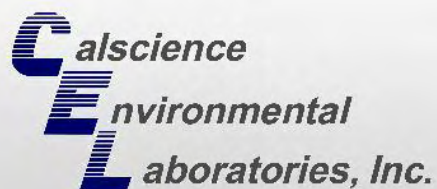
☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznna ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☒ 4 02CGJ Trip Blank Lot#: _____ Labeled/Checked by: PS

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: YS

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: YS



CALSCIENCE

WORK ORDER NUMBER: 13-07-0774

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ERM - West

Client Project Name: UNITED SFMC PCB's / 0163462.01

Attention: Kevin Mucha
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Approved for release on 07/19/2013 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



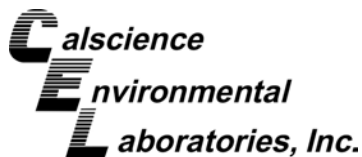
7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

NELAP ID: 03220CA | DoD-ELAP ID: L10-41 | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

Client Project Name: UNITED SFMC PCB's / 0163462.01
Work Order Number: 13-07-0774

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Work Order Narrative

Work Order: 13-07-0774

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 07/12/13. They were assigned to Work Order 13-07-0774.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT \leq 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

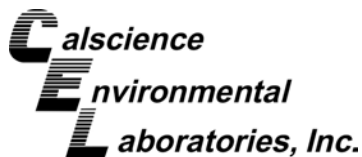
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

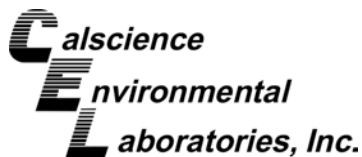
Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-07-0774
Project Name: UNITED SFMC PCB's / 0163462.01
PO Number:
Date Received: 07/12/13

Attn: Kevin Mucha

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B10-D1	13-07-0774-1	07/10/13 09:40	2	Wipe
B10-D2	13-07-0774-2	07/10/13 10:00	2	Wipe
B10-D3	13-07-0774-3	07/10/13 10:15	2	Wipe
B10-D4	13-07-0774-4	07/10/13 10:30	2	Wipe
B10-D5	13-07-0774-5	07/10/13 10:45	2	Wipe
B10-D6	13-07-0774-6	07/10/13 11:00	2	Wipe
B10-D7	13-07-0774-7	07/10/13 11:20	6	Wipe
B10-D7 DUP	13-07-0774-8	07/10/13 11:20	2	Wipe
B10-D8	13-07-0774-9	07/10/13 12:15	2	Wipe
B10-D9	13-07-0774-10	07/10/13 12:25	2	Wipe
B10-D10	13-07-0774-11	07/10/13 12:35	2	Wipe
B15-D1	13-07-0774-12	07/10/13 13:00	2	Wipe
B15-D2	13-07-0774-13	07/10/13 13:20	2	Wipe
B15-D3	13-07-0774-14	07/10/13 13:25	2	Wipe
B15-D4	13-07-0774-15	07/10/13 14:00	2	Wipe
B15-D4 DUP	13-07-0774-16	07/10/13 14:10	2	Wipe
B15-D5	13-07-0774-17	07/10/13 14:25	6	Wipe
B15-D6	13-07-0774-18	07/10/13 15:00	2	Wipe
B15-D7	13-07-0774-19	07/10/13 15:10	2	Wipe
B15-D8	13-07-0774-20	07/10/13 15:20	2	Wipe
B15-D9	13-07-0774-21	07/10/13 15:40	2	Wipe
B15-D10	13-07-0774-22	07/10/13 15:55	2	Wipe

Return to Contents



Detections Summary

Client: ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Work Order: 13-07-0774
Project Name: UNITED SFMC PCB's / 0163462.01
Received: 07/12/13

Attn: Kevin Mucha

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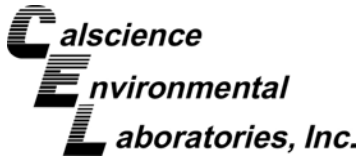
Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
B10-D5 (13-07-0774-5)						
Aroclor-1254	26		5.0	ug/smpl	EPA 8082	EPA 3540C
B10-D7 (13-07-0774-7)						
Aroclor-1254	11		5.0	ug/smpl	EPA 8082	EPA 3540C
B10-D7 DUP (13-07-0774-8)						
Aroclor-1254	16		5.0	ug/smpl	EPA 8082	EPA 3540C
B10-D10 (13-07-0774-11)						
Aroclor-1260	2.2		1.0	ug/smpl	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-D1	13-07-0774-1-AB	07/10/13 09:40	Wipe	GC 31	07/15/13	07/17/13 18:04	130715L17

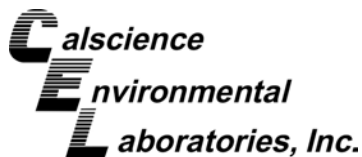
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	104	50-130	
2,4,5,6-Tetrachloro-m-Xylene	97	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	97	50-130	
2,4,5,6-Tetrachloro-m-Xylene	98	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-D3	13-07-0774-3-AB	07/10/13 10:15	Wipe	GC 31	07/15/13	07/17/13 18:42	130715L17

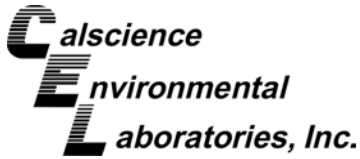
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	106	50-130	
2,4,5,6-Tetrachloro-m-Xylene	101	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	105	50-130	
2,4,5,6-Tetrachloro-m-Xylene	104	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
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Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-D5	13-07-0774-5-AB	07/10/13 10:45	Wipe	GC 31	07/15/13	07/18/13 12:58	130715L17

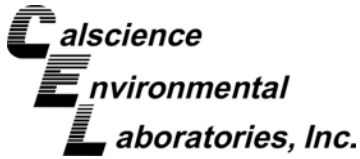
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	5.0	5	
Aroclor-1221	ND	5.0	5	
Aroclor-1232	ND	5.0	5	
Aroclor-1242	ND	5.0	5	
Aroclor-1248	ND	5.0	5	
Aroclor-1254	26	5.0	5	
Aroclor-1260	ND	5.0	5	
Aroclor-1262	ND	5.0	5	
Aroclor-1268	ND	5.0	5	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	177	50-130	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	132	50-130	2,7
2,4,5,6-Tetrachloro-m-Xylene	94	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
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Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-D7	13-07-0774-7-AB	07/10/13 11:20	Wipe	GC 31	07/15/13	07/18/13 12:20	130715L17

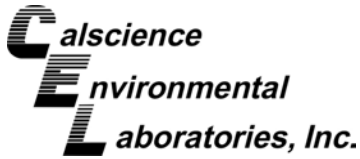
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	5.0	5	
Aroclor-1221	ND	5.0	5	
Aroclor-1232	ND	5.0	5	
Aroclor-1242	ND	5.0	5	
Aroclor-1248	ND	5.0	5	
Aroclor-1254	11	5.0	5	
Aroclor-1260	ND	5.0	5	
Aroclor-1262	ND	5.0	5	
Aroclor-1268	ND	5.0	5	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	125	50-130	
2,4,5,6-Tetrachloro-m-Xylene	97	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	5.0	5	
Aroclor-1221	ND	5.0	5	
Aroclor-1232	ND	5.0	5	
Aroclor-1242	ND	5.0	5	
Aroclor-1248	ND	5.0	5	
Aroclor-1254	16	5.0	5	
Aroclor-1260	ND	5.0	5	
Aroclor-1262	ND	5.0	5	
Aroclor-1268	ND	5.0	5	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	154	50-130	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	115	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

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Date Received: 07/12/13
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Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-D8	13-07-0774-9-AB	07/10/13 12:15	Wipe	GC 31	07/15/13	07/17/13 20:36	130715L17

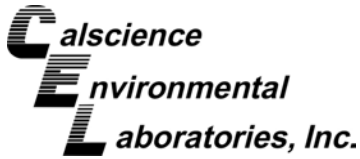
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	108	50-130	
2,4,5,6-Tetrachloro-m-Xylene	104	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	122	50-130	
2,4,5,6-Tetrachloro-m-Xylene	102	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

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Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B10-D10	13-07-0774-11-AB	07/10/13 12:35	Wipe	GC 31	07/15/13	07/17/13 21:14	130715L17

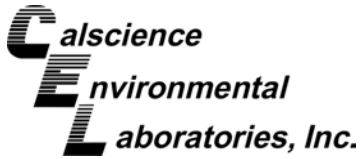
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	2.2	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	118	50-130	
2,4,5,6-Tetrachloro-m-Xylene	98	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	103	50-130	
2,4,5,6-Tetrachloro-m-Xylene	99	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

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Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-D2	13-07-0774-13-AB	07/10/13 13:20	Wipe	GC 31	07/15/13	07/17/13 21:53	130715L17

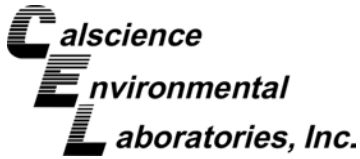
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	50-130	
2,4,5,6-Tetrachloro-m-Xylene	100	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	50-130	
2,4,5,6-Tetrachloro-m-Xylene	99	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-D4	13-07-0774-15-AB	07/10/13 14:00	Wipe	GC 31	07/15/13	07/17/13 22:31	130715L17

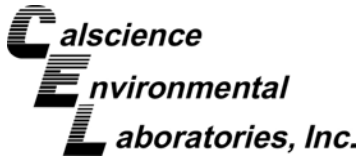
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	103	50-130	
2,4,5,6-Tetrachloro-m-Xylene	99	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	102	50-130	
2,4,5,6-Tetrachloro-m-Xylene	94	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-D5	13-07-0774-17-AB	07/10/13 14:25	Wipe	GC 31	07/15/13	07/18/13 00:06	130715L18

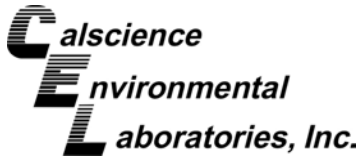
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	107	50-130	
2,4,5,6-Tetrachloro-m-Xylene	98	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	104	50-130	
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-D7	13-07-0774-19-AB	07/10/13 15:10	Wipe	GC 31	07/15/13	07/18/13 00:44	130715L18

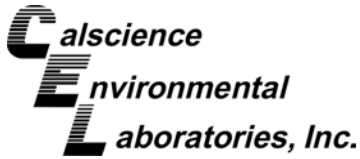
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	97	50-130	
2,4,5,6-Tetrachloro-m-Xylene	95	50-130	

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	104	50-130	
2,4,5,6-Tetrachloro-m-Xylene	91	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

Page 11 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B15-D9	13-07-0774-21-AB	07/10/13 15:40	Wipe	GC 31	07/15/13	07/18/13 01:23	130715L18

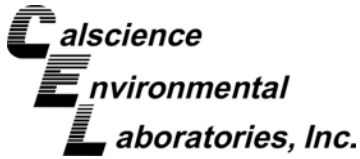
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	50-130	
2,4,5,6-Tetrachloro-m-Xylene	91	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	50-130	
2,4,5,6-Tetrachloro-m-Xylene	93	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/smpl

Project: UNITED SFMC PCB's / 0163462.01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-582-224	N/A	Soil	GC 31	07/15/13	07/17/13 14:04	130715L17

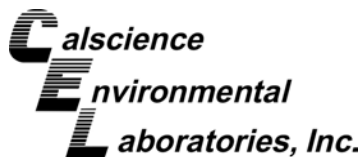
Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	50-130	
2,4,5,6-Tetrachloro-m-Xylene	104	50-130	

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	1.0	1	
Aroclor-1221	ND	1.0	1	
Aroclor-1232	ND	1.0	1	
Aroclor-1242	ND	1.0	1	
Aroclor-1248	ND	1.0	1	
Aroclor-1254	ND	1.0	1	
Aroclor-1260	ND	1.0	1	
Aroclor-1262	ND	1.0	1	
Aroclor-1268	ND	1.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	50-130	
2,4,5,6-Tetrachloro-m-Xylene	100	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082

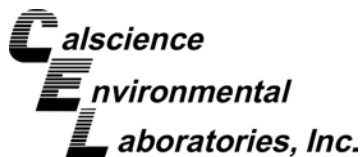
Project: UNITED SFMC PCB's / 0163462.01

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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number					
B10-D7	Wipe	GC 31	07/15/13	07/18/13 10:44	130715S17					
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	ND	2.000	2.251	113	2.214	111	50-135	2	0-25	
Aroclor-1260	ND	2.000	10.16	508	12.40	620	50-135	20	0-25	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082

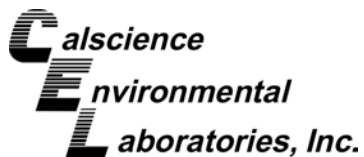
Project: UNITED SFMC PCB's / 0163462.01

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Quality Control Sample ID	Matrix		Instrument		Date Prepared		Date Analyzed		MS/MSD Batch Number	
B15-D5	Wipe		GC 31		07/15/13		07/17/13 17:44		130715S18	
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	ND	2.000	1.913	96	1.792	90	50-135	7	0-25	
Aroclor-1260	ND	2.000	1.716	86	2.020	101	50-135	16	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

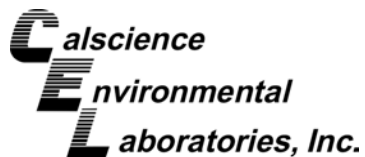
Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462.01

Page 1 of 2

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number	
099-12-582-224	Soil	GC 31	07/17/13 13:45	130715L17	
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	2.136	107	50-135	
Aroclor-1260	2.000	1.633	82	50-135	

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Quality Control - LCS

ERM - West
1277 Treat Boulevard, Suite 500
Walnut Creek, CA 94597-7989

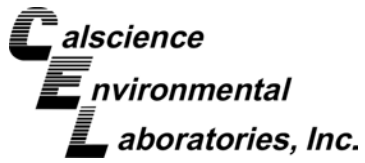
Date Received: 07/12/13
Work Order: 13-07-0774
Preparation: EPA 3540C
Method: EPA 8082

Project: UNITED SFMC PCB's / 0163462.01

Page 2 of 2

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number	
099-12-582-225	Soil	GC 31	07/17/13 14:42	130715L18	
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016	2.000	2.016	101	50-135	
Aroclor-1260	2.000	1.786	89	50-135	

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Sample Analysis Summary Report

Work Order: 13-07-0774

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8082	EPA 3540C	669	GC 31	1



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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 13-07-0774

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	For any analysis identified as a "field" test with a holding time (HT) \leq 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Emma Dennison

From: Kevin Mucha [Kevin.Mucha@erm.com]
Sent: Monday, July 15, 2013 10:40 AM
To: Emma Dennison; Terri Herson
Cc: Virendra Patel
Subject: RE: Sample receipt confirmation / 13-07-0774 / UNITED SFMC PCB's / 0163462.01 >>>>
 RESPONSE REQUESTED<<<<


B10-D9 Sample time should be 1225.

Thanks,

Kevin M. Mucha, P.E., QSD/QSP
 Senior Engineer
 ERM
 1277 Treat Boulevard, Suite 500
 Walnut Creek, Ca 94597
 T: +1 925 946 0455
 T: +1 925 482 3283 (Direct)
 F: +1 925 946 9968
 M: +1 925 330 3173

kevin.mucha@erm.com

www.erm.com

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Please visit ERM's web site: <http://www.erm.com>

From: Emma Dennison [<mailto:edennison@calscience.com>]
Sent: Monday, July 15, 2013 10:21 AM
To: Kevin Mucha; Terri Herson
Cc: Virendra Patel
Subject: Sample receipt confirmation / 13-07-0774 / UNITED SFMC PCB's / 0163462.01 >>>>RESPONSE REQUESTED<<<<
Importance: High

Sample receipt confirmation attached.

Note, sample #10(B10-D9) collection time on COC is 1235; however, collection time per label is 1225. Please advise on the correct sampling time.

Please review and advise of any changes required.

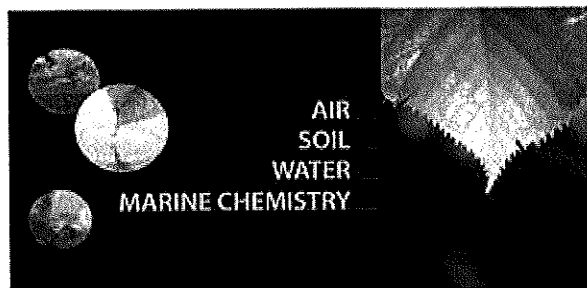
Please call with any questions or concerns.

Best regards,

Emma Dennison
 Project Manager Assistant



7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494
www.calscience.com



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Please visit ERM's web site: <http://www.erm.com>

Virendra Patel

From: Kevin Mucha [Kevin.Mucha@erm.com]
Sent: Friday, July 12, 2013 12:01 PM
To: Virendra Patel; Terri Herson
Cc: Emma Dennison; Bob Stearns
Subject: RE: United SFMC -- 13-07-0774 <response requested>

These are to be combined and sampled together. Same location. Same sample. The filter was for bulk removal and wipe for residual.

-----Original Message-----

From: Virendra Patel [vpatel@calscience.com]
Sent: Friday, July 12, 2013 02:47 PM Eastern Standard Time
To: Kevin Mucha; Terri Herson
Cc: Emma Dennison; Bob Stearns
Subject: United SFMC -- 13-07-0774 <response requested>

Kevin,

For the attached COC, we have received both a wipe and a filter cartridge for each line item? Are we to screen both the wipe and the filter cartridge distinctly for EPA 8082? In the past these were submitted under separate line items, correct?

Please advise at your earliest convenience. In advance, Thanks!

Virendra Patel
Project Manager
(714) 895-5494

-----Original Message-----

From: Noel Cruise
Sent: Friday, July 12, 2013 11:42 AM
To: Virendra Patel
Subject: ERM

See attached.

This message contains information which may be confidential, proprietary, privileged, or otherwise protected by law from disclosure or use by a third party. If you have received this message in error, please contact us immediately at (925) 946-0455 and take the steps necessary to delete the message completely from your computer system. Thank you.

Please visit ERM's web site: <http://www.erm.com>

PROJECT #		PROJECT NAME		REQUESTED PARAMETERS									
0163462.01		UNITED S Fmc P&SS											
SAMPLER (PRINT NAME)		(SIGNATURE)											
Kevin Mucha		<i>[Signature]</i>											
RECEIVING LABORATORY													
Cal Science													
SAMPLE ID.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVE	ION	SAMPLING VOLUME	MATRIX	# OF CONTAINERS	DATE	TIME	FIELD REMARKS
B10-D1	7/10/13	940	X		Microbial Wipe			Wipe	SOIL	2	7/11/13	1300	Project Specific Arch 600's SEE Bob Stearns 50xHET extraction for WIPES
B10-D2		1000							WATER				
B10-D3		1015							WATER				
B10-D4		1030							WATER				
B10-D5		1045							WATER				
B10-D6		1100							WATER				
B10-D7		1100							WATER				
B10-D7up		1120							WATER				
B10-D8		1215							WATER				
B10-D9		1235							WATER				
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE		TIME		FIELD REMARKS	
<i>[Signature]</i>		7/11/13		1300		Tom Orinvalley CER		7/11/13		1300		Project Specific Arch 600's SEE Bob Stearns 50xHET extraction for WIPES	
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE		TIME			
<i>[Signature]</i>		7/11/13		1730		pneum. a. ca		7/12/13		10:30			
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE		TIME			
<i>[Signature]</i>		7/11/13		1730		pneum. a. ca		7/12/13		10:30			
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<div> <div>SEND REPORT TO:</div> <div> Kevin M. Mucha - erm.com Terrell H. Henson @ erm.com </div> </div>													

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B15-D2		1320																																																																						
B15-D3		1325																																																																						
B15-D4		1400																																																																						
B15-D400		1410																																																																						
B15-D5		1425																																																																						
B15-D6		1500																																																																						
B15-D7		1510																																																																						
B15-D8		1540																																																																						
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NO: 07735

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PROJECT #	PROJECT NAME	MATRIX	# OF CONTAINERS	RECEIVING LABORATORY	SAMPLE ID.	DATE	TIME	GRAB	COM	SAMPLING METHOD	PRESERVED	SAMPLING VOLUME	DATE	TIME	RECEIVED BY	DATE	TIME	FIELD REMARKS
0163462-01	WHITED SFMC PCBs	WATER	2	CAL SCIENCE	B15-D9	7/10/13	1540	X		microwave wipe	-	wipe filter	7/11/13	1300	Tommy CEC	7/11/13	1300	PROJECT SPECIFIC APPROXES SEE BOB STEARNS SOPHLET EXTRACTION FOR WIPES
	KEVIN MUCHHA	SOIL	2		B15-D10	7/10/13	1555	X		↓	-		7/11/13	10:30		7/11/13	10:30	
<p>RELINQUISHED BY (SIGNATURE) <i>Kevin Muchha</i> DATE 7/11/13 TIME 1300 RECEIVED BY Tommy CEC DATE 7/11/13 TIME 1300</p> <p>RELINQUISHED BY (SIGNATURE) <i>Tommy CEC</i> DATE 7/11/13 TIME 1300 RECEIVED BY DATE TIME</p> <p>RELINQUISHED BY (SIGNATURE) DATE TIME RECEIVED BY DATE TIME</p>																		
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<p>SEND REPORT TO: <i>Kevin Muchha @ erm.com</i></p> <p><i>Terri. Herson CERM.com</i></p>																		

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22

0774

 <div style="text-align: right;"> < WebShip > > > > 800-322-5555 www.gso.com </div>	
Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520	Tracking #: 522249420 
Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841	<div style="display: flex; justify-content: space-between;"> <div> ORC GARDEN GROVE </div> <div style="border: 1px solid black; padding: 5px;"> A </div> </div>
COD: \$0.00	D92841A  13939288
Reference: ERM	
Delivery Instructions:	
Signature Type: SIGNATURE REQUIRED	

Print Date : 07/11/13 14:39 PM

Package 1 of 1

Send Label To Printer

☒ Print All

Edit Shipment

Finish

LABEL INSTRUCTIONS:

- Do not copy or reprint this label for additional shipments - each package must have a unique barcode.
- STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
- STEP 2 - Fold this page in half.
- STEP 3 - Securely attach this label to your package, do not cover the barcode.
- STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email

Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.

Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Return to Contents

WORK ORDER #: **13-07-** 0 7 7 4

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: ERM

DATE: 07 / 12 / 13

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.4 °C - 0.2 °C (CF) = 3.2 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Initial: JS

CUSTODY SEALS INTACT:

☒ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A
☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Initial: JS

Initial: JD

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☒ ☐ ☐

Sample container label(s) consistent with COC..... ☐ ☒ ☐

Sample container(s) intact and good condition..... ☒ ☐ ☐

Proper containers and sufficient volume for analyses requested..... ☒ ☐ ☐

Analyses received within holding time..... ☒ ☐ ☐

pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours... ☐ ☐ ☒

Proper preservation noted on COC or sample container..... ☐ ☐ ☒

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐ ☐ ☒

Tedlar bag(s) free of condensation..... ☐ ☐ ☒

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ^(w/ve) ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Water: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☒ Cartridge Trip Blank Lot#: _____ Labeled/Checked by: JD

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: WSE

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: WSE

WORK ORDER #: 13-07-0774

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:**Comments:**

- ☐ Sample(s) NOT RECEIVED but listed on COC
☐ Sample(s) received but NOT LISTED on COC
☐ Holding time expired – list sample ID(s) and test
☐ Insufficient quantities for analysis – list test
☐ Improper container(s) used – list test
☐ Improper preservative used – list test
☐ No preservative noted on COC or label – list test & notify lab
☐ Sample labels illegible – note test/container type
☒ Sample label(s) do not match COC – Note in comments
- ☐ Sample ID
☒ Date and/or Time Collected
☐ Project Information
☐ # of Container(s)
☐ Analysis
- ☐ Sample container(s) compromised – Note in comments
- ☐ Water present in sample container
☐ Broken
- ☐ Sample container(s) not labeled
☐ Air sample container(s) compromised – Note in comments
- ☐ Flat
☐ Very low in volume
☐ Leaking (Not transferred - duplicate bag submitted)
☐ Leaking (transferred into Calscience Tedlar® Bag*)
☐ Leaking (transferred into Client's Tedlar® Bag*)
- ☐ Other: _____

(-10) BIO-DA collection time
per label: 1225

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: JD 07/12/13

Appendix D
RBSL Calculations

APPENDIX D: RISK-BASED SCREENING LEVEL CALCULATION

Appendix D presents the calculations that have been developed to determine the risk-based screening levels (RBSLs) for the SFMC PCB project. RBSLs have been calculated for three different media: rinsate, residues on drain grates, and interior dust. RBSLs for rinsate and residues on drain grates are intended to assist in determining whether sufficient clean-up of industrial waste (IW) drains / lines have been accomplished. RBSLs for interior dust are intended to support determining whether further characterization of building interiors should be considered.

The equations for calculating the RBSLs for each exposure pathway are presented below.

1.0 RBSLs FOR RINSATE

Water in the IW system is conveyed and treated at the Metals Removal Plant (MRP). From the MRP, water is conveyed and treated at the San Francisco International Airport wastewater treatment plant (SFIA WWTP) before discharging to San Francisco Bay.

The rinsate RBSL was developed to be protective of human health and ecological receptors, including aquatic biota, sediment-dwelling biota, and a hypothetical human recreator (Table D-1). To ensure a protective screen, the rinsate RBSL was the lowest value derived from the following numerical standards:

- California Toxics Rule water quality standards for the protection of recreational use by humans (USEPA 2001);
- California Toxics Rule water quality standards for the protection of aquatic life (USEPA 2001); and
- Lowest NOAA sediment quality guideline (NOAA 2008).ⁱ

ⁱ The threshold effect level (TEL) was lower than the consensus-based threshold effect concentration (TEC) and was selected as the guideline for total PCBs. A sediment/water partition coefficient was then applied to obtain a water concentration to facilitate comparisons to water quality standards and the selection of the lowest value for the rinsate RBSL.

Significant dilution occurs between water leaving the building and reaching the San Francisco Bay and derivation of rinsate RBSLs account for dilution prior to drain water reaching San Francisco Bay (Attachment D1). Note that rinsate RBSL calculations do not account for entrainment at the MRP or during treatment at the SFIA treatment system. In addition, no dilution in San Francisco Bay was accounted for in the RBSL calculation. Hence, the rinsate RBSL is considered to represent a conservative and protective screening level for PCBs in rinsate. Note that the rinsate RBSL is intended to assist a determination for whether acceptable clean-up of IW drain system has been attained.

2.0 *RBSLs FOR RESIDUES ON GRATES AND INTERIOR DUST*

The RBSLs for residues on IW drain grates and interior dust were developed to be protective of human health for the following receptors: aircraft maintenance worker, facility maintenance worker, and hypothetical future construction worker. RBSLs were developed for high toxicity PCBs (as represented by Aroclor 1254) and low toxicity PCBs (as represented by Aroclor 1016).

The RBSLs for residues on drain grates and interior dust are based on the equations provided in Appendix D of the World Trade Center Indoor Environment Assessment: Selecting Contaminants of Potential Concern and Setting Health-Based Benchmarks (WTC Assessment; COPC Committee WTC Indoor Air Task Force Working Group 2003). Those equations and exposure parameters are based upon USEPA's Standard Operating Procedures for Residual Exposure Assessment (USEPA 2001). The USEPA guidance was developed to estimate exposure to pesticides which are typically applied to indoor surfaces as a liquid or spray formulation. Therefore, these equations are useful for both interior dusts and residues on grates. The equations cover pathways for both dermal contact and incidental dust ingestion.

2.1 *INCIDENTAL INGESTION DUE TO HAND-TO-MOUTH BEHAVIOR*

The WTC Assessment includes incidental dust ingestion due to hand-to-mouth behavior for adults and children (COPC Committee WTC Indoor Air Task Force Working Group 2003).

The equation for the incidental ingestion RBSL for exposure to non-carcinogenic contaminants is as follows:

$$RBSL_{\text{ingestion}} = \frac{THQ \times RfD \times BW \times AT_{nc} \times 365d / yr}{ET \times FTSS \times SA \times FQ \times SE \times EF \times ED} \quad \text{Eq D-1}$$

where:

- RBSL_{ingestion} = ingestion risk-based screening level (mg/cm²)
- THQ = target hazard quotient (unitless)
- RfD = reference dose (mg/kg-day)
- BW = body weight (kg)
- AT_{nc} = noncancer averaging time (years)
- 365 = days in a year (365 d/yr)
- ET = exposure time (hours/day)
- FTSS = fraction transferred from surface to skin (unitless)
- SA = surface area (cm²/event)
- FQ = frequency of hand to mouth events (events/hr)
- SE = saliva extraction factor (unitless)
- EF = exposure frequency (days/year)
- ED = exposure duration (years)

The exposure parameters for each receptor are presented in Table D-1 (and Attachments D2 through D9).

Target Hazard Quotient (THQ) and Target Cancer Risk (TCR)

The target hazard quotient is 1 and target cancer risk is 1×10^{-6} . The target cancer risk was set at 1×10^{-6} based upon direction by USEPA Region 9.

Body Weight (BW)

The adult body weight is 70 kilograms (kg) (USEPA 2004, as directed by USEPA Region 9).

Exposure Time (ET)

The WTC Assessment evaluated both hard and soft (e.g., carpet) surfaces. For the SFMC, all surfaces were assumed to be hard surfaces as there is little to no carpeting at the SFMC. While the standard workday is 8 hours, the exposure time to areas of either settled dust or residues present on grates are likely to be much less. The floors and most surfaces are regularly cleaned and free of most dust. Dust is found in infrequently used areas such as the tops of tool cabinets and in out-of-reach areas such as overhead pipes and ducts. In regard to the drains, workers would not

spend significant time in skin to drain grate contact. The assumed exposure times are summarized below.

Worker Type	Aircraft Maintenance		Facility Maintenance		Construction Worker
Contact Surface	Dust	Grate	Dust	Grate	Dust
Exposure Time	0.5 hr/day	0.083 hr/day	8 hr/day	8 hr/day	8 hr/day

Aircraft Maintenance Worker. The aircraft maintenance worker would have infrequent contact with dusty workspaces. They would primarily consist of contact with dusty cabinet tops and it would be unlikely for them to be in contact with dusty duct work. The exposure time assumes contact with dusty workspaces to be no more than 2.5 hours per week. The aircraft maintenance worker would have little reason to be in contact with drain grates, therefore, a maximum exposure time of 5 minutes a day was assumed.

Facility Maintenance Worker. The most significant exposures to dust would occur to heating, ventilation and cooling (HVAC) personnel. Their job involves accessing the duct systems in the upper reaches of the buildings that are infrequently cleaned. They may encounter dusty workspaces for 8 hours a day. Grate contact would likely occur during routine (annual or semiannual) maintenance of the drainage systems.

Hypothetical Future Construction Worker. Construction workers were assumed to have 8 hours a day exposure to dust due to the potentially intensive activities that could be undertaken by construction workers.

Fraction Transferred from Surface to Skin (FTSS)

As described above, only hard surfaces were assessed. As recommended in the WTC assessment, a FTSS of 50 percent was selected (COPC Committee WTC Indoor Air Task Force Working Group 2003).

Surface Area (SA)

The surface area used in the equation represents the surface area contacted during a mouthing event. As recommended in the WTC Assessment, a surface area representing three adult fingers was used. This represents 5 percent of the surface area of both hands (COPC Committee WTC Indoor Air Task Force Working Group 2003). A value of 49 cm² was used based upon the Exposure Factors Handbook (USEPA

2011) updated hand surface area of 980 cm². This may be overestimating exposures to dust and residues, as putting the equivalent of three fingers in the mouth in an industrial work scenario is unlikely. Additionally, some workers would be wearing gloves during the workday. However, gloves are not required for all worker scenarios.

Frequency of Hand to Mouth Events (FQ)

As suggested in the WTC Assessment a value of 1 time per hour was used (COPC Committee WTC Indoor Air Task Force Working Group 2003). However, this may be overestimating exposures to dust and residues as frequent hand-to-mouth behavior in an industrial work scenario is unlikely. The updated Standard Operating Procedures for Residential Pesticide Exposure Assessment (USEPA 2012a) only evaluates hand-to-mouth behavior for young children and the Exposure Factors Handbook (USEPA 2011) indicates there is no data available for adult hand-to-mouth behavior. Therefore, this pathway may overestimate exposures due to dust ingestion.

Saliva Extraction Factor (SE)

The saliva extraction factor is the fraction transferred from skin-to-mouth. The actual value will depend on the contaminant, mouthing time, and other behavioral patterns. No studies regarding PCBs were identified. The default value identified in the WTC Assessment of 50 percent was used for all receptors (COPC Committee WTC Indoor Air Task Force Working Group 2003).

Exposure Frequency (EF)

The exposure frequency is the number of days per year the exposure occurs. For the aircraft maintenance worker, the USEPA default worker value of 250 days per year was selected (USEPA 2004). Facility maintenance workers are on-call for the entire SFMC facility and would likely only spend a day or two a week in a single building for a specific maintenance issue. Two days a week for contact with dusty spaces over the typical 250 days per year was assumed; which is equivalent to 100 days per year. For grate exposures, facility maintenance workers would likely only contact the grates during annual or semiannual drainage cleaning. Therefore two (2) days a year was assumed. For the construction worker, typical projects at the SFMC are short-term and do not last longer than 1 month. Therefore, 30 days was assumed.

Exposure Duration (ED)

The exposure duration is the number of years over which the exposure occurs. For the aircraft maintenance and facility maintenance workers a default value of 25 years was assumed (USEPA 2004). Construction projects would likely occur on a much shorter timeframe of one year or less. A value of one year was conservatively assumed.

Toxicity Criteria (RfD or CSF)

Non-cancer reference doses (RfD) and cancer slope factors (CSF) were obtained from USEPA Regional Screening Levels tables (USEPA 2013).

2.2 DERMAL CONTACT

The equation for the dermal contact RBSL for exposure to non-carcinogenic contaminants is as follows:

$$RBSL_{dermal} = \frac{THQ \times RfD \times BW \times AT_{nc} \times 365d / yr}{TC \times ET \times FTSS \times EF \times ED \times ABS_d} \quad \text{Eq D-2}$$

where:

- RBSL_{dermal} = dermal risk-based screening level (mg/cm²)
- THQ = target hazard quotient (unitless)
- RfD = reference dose (mg/kg-day)
- BW = body weight (kg)
- AT_{nc} = noncancer averaging time (years)
- 365 = days in a year (365 d/yr)
- TC = transfer coefficient (cm²/hr)
- ET = exposure time (hours/day)
- FTSS = fraction transferred from surface to skin (unitless)
- ABS_d = dermal absorption fraction (unitless)
- EF = exposure frequency (days/year)
- ED = exposure duration (years)

The dermal contact RBSL for exposure to carcinogenic contaminants is revised as follows:

$$RBSL_{dermal} = \frac{TCR \times BW \times AT_c \times 365d / yr}{TC \times ET \times FTSS \times EF \times ED \times ABS_d \times CSF} \quad \text{Eq. D-3}$$

where:

- RBSL_{dermal} = dermal risk-based screening level (mg/cm²)
- TCR = target cancer risk (unitless)
- BW = body weight (kg)

AT _{nc}	=	noncancer averaging time (years)
365	=	days in a year (365 d/yr)
TC	=	transfer coefficient (cm ² /hr)
ET	=	exposure time (hours/day)
FTSS	=	fraction transferred from surface to skin (unitless)
ABS _d	=	dermal absorption fraction (unitless)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
CSF	=	cancer slope factor (mg/kg-day) ⁻¹

The exposure parameters for each receptor are presented in Table D-1 (and Attachments D2 through D9).

The parameters specific to dermal contact are described below.

Transfer Coefficient

The transfer coefficient is derived from the surface area of skin exposed per unit of time as reflected in the following equation.

$$TC = SA_e \times CR_{b,e} \times TE$$

where:

TC	=	transfer coefficient (cm ² /hr)
SA _e	=	surface area of skin per event (cm ²)
CR _{b,e}	=	skin to media surface contact rate for body part <i>b</i> (1/hr)
TE	=	transfer efficiency (unitless)

The transfer efficiency (TE) is the same as the fraction transferred from skin-to-surface (FTSS) included in the dermal RBSL calculation shown above. The TE was not included in the calculation of the transfer coefficients shown in Table D-1 (and Attachments D2 through D9).

The surface area of most receptors was assumed to be palms only; however, the hypothetical construction worker would encounter dust on a more intensive level. Still, the majority of the contact with dust encountered would be on the palms. Therefore, a TC was calculated for both the palms and the remainder of the exposed surface area (defined below). These TCs were summed for inclusion in the derivation of the dermal RBSL.

Surface Area (SA_e)

The surface area used for palms is 490 cm². The hypothetical construction worker was also evaluated for exposures to the remainder of exposed

skin. As described in the Dermal Risk Assessment Guidance for Superfund (RAGS Part E) the surface area for the industrial worker is described as the 50th percentile of the face, forearms and hands (USEPA 2004). This was obtained from the 2011 Exposure Factors Handbook (USEPA 2011) and averaged between male and female adults. RAGS Part E describes the face surface area as 1/3 of the head surface area and forearms surface area is 4/5 of the arms surface area.

Contact Rate (CR_{b,e})

The contact rate for palms was assumed to be one contact per hour for palms. This was used for all receptors. In addition, the CR for the remainder of the exposed surface area for the construction worker was assumed to be much less frequent than contact with the palms. The CR for the remainder of the exposed surface area was assumed to be one contact per 8-hour workday.

Dermal Absorption Fraction (ABS_d)

The ABS_d for PCBs was selected as 0.14 per RAGS Part E (USEPA 2004).

2.3

FINAL RBSL CALCULATION

The RBSL calculations are presented in Table D-1 (and Attachments D2 through D9) for dust exposures to the aircraft maintenance worker, dust exposures to the facility maintenance worker, dust exposures to the construction worker, grate exposures to the aircraft maintenance worker, and grate exposures to the facility maintenance worker, respectively. The final RBSL is calculated as follows:

$$RBSL \text{ (mg/cm}^2\text{)} = \frac{1}{\left(\frac{1}{RBSL_{ing}} + \frac{1}{RBSL_{derm}} \right)}$$

Where:

$$RBSL_{ing} = RBSL\text{-ingestion (mg/cm}^2\text{)}$$

$$RBSL_{derm} = RBSL\text{-dermal contact (mg/cm}^2\text{)}$$

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TABLE D-1 RISK-BASED SCREENING LEVELS (RBSLS) FOR PCBS
(highlighted cells contain lowest values that were selected as RBSLs)

Receptor	Rinsate (ug/L)	Dust (ug/100 cm²)		Wipe (ug/100 cm²)	
		A1254	A1016	A1254	A1016
SFMC Facility Buildings					
Aircraft Maintenance Worker	—	0.61	17.6	3.7	105
Facility Maintenance Worker	—	RL*	2.7	4.8	137
Hypothetical Construction Worker	—	3.3	11.4	—	—
San Francisco Bay					
Recreator	3.3	—	—	—	—
Aquatic Biota	269	—	—	—	—
Sediment-Dwelling Biota	14	—	—	—	—

* Reporting Limit was used as the RBSL because the lowest calculated value was less than reporting limit.

ATTACHMENT D1

RINSATEL RBSLS CALCULATIONS

Factors	Risk-Based Screening Levels		
	recreator	aquatic	sediment-dwelling
Total PCB Benchmark			
CA Toxics Rule WQS	0.00017	0.014	—
NOAA Sediment Guideline (TEL)	—	—	34.1
Octanol-Water Coefficient (k_{ow})			
SF Bay Sediment TOC	—	—	0.012
Aroclor 1016 log k_{ow}	—	—	4.4
Aroclor 1260 log (k_{ow})	—	—	6.8
Water-Sediment Partitioning Coefficient (k_p)			
Aroclor 1016 k_p	—	—	173
Aroclor 1260 k_p	—	—	45429
Risk-Based Concentration (ug/L)	0.00017	0.014	0.00075
Dilution			
Rinsate Flow (mgd)*		0.000063	
MRP Throughput Flow (mgd)**		0.28	
MRP Dilution Factor		4428	
SFO WWTP Throughput Flow (mgd)		1.2	
SFO WWTP Dilution Factor		4.3	
Total Dilution Factor		19200	
RBSL (ug/L)	3.3	269	14

RBSLs do not assume entrainment of PCBs at MRP or SFIA WWTP

All concentrations in ppb (ug/L or ug/kg), unless otherwise noted

Legend/Notes:

aquatic = protective of freshwater aquatic biota

sediment-dwelling = protective of freshwater sediment-dwelling biota

log k_{ow} Source: Hazardous Substances Data Bank (HSDB)

$k_p = 0.6 * \text{organic content}_{\text{sediments}} * k_{ow}$ -- Source: USEPA 1979

organic content (kg/kg) = 0.012 (Gobas & Wilcockson 2003)

MRP = Metals Removal Plan

SFO = San Francisco International Airport wastewater treatment plan

TEL = threshold effect level (NOAA 2006)

WWTP = wastewater treatment plan

* 250 gallons over 4 days

** average monthly MRP flow rate for 2012 = 8.3 mgd

ATTACHMENT D2
INTERIOR DUST RBSLS CALCULATIONS FOR AROCLOR 1254 - NON-CANCER

Ingestion

		UAL Workers				
Parameter	Abbrev	Aircraft	Facility	Const	Units	Reference
Contaminant surface loading	CSL	0.334	0.052	1.390	ug/cm²	Calculated Eq D-1
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	33	5	139	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	100	30	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance and 1 month project for construction workers
Exposure duration	ED	25	25	1	yr	USEPA 2004; assumes1 yr for construction worker
Averaging time (NC)	AT	25	25	1	yr	equal to exposure duration
Exposure time	ET	0.5	8	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance and construction workers
Fraction transferred from surface to skin	FTSS	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Mouthing surface area	SA	49	49	49	cm²/event	3 fingers; COPC Committee of the WTC Task Force 2003
Frequency of hand to mouth events	FQ	1	1	1	events/hr	COPC Committee of the WTC Task Force 2003
Saliva extraction factor	SE	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Reference Dose (absorbed)	RfD _{abs}	2.00E-05	2.00E-05	2.00E-05	kg-da/mg	USEPA 2013
Target Hazard Index	THI	1.0	1.0	1.0		point of departure

Dermal Uptake

		UAL Workers				
Parameter	Abbrev	Aircraft	Facility	Const	Units	Reference
Contaminant surface loading	CSL	0.119	0.019	0.040	ug/cm²	Calculated Eq D-2
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	12	1.9	4.0	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	100	30	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance and 1 month project for construction workers
Exposure duration	ED	25	25	1	yr	USEPA 2004; assumes 1 yr for construction worker
Averaging time (NC)	AT	25	25	1	yr	equal to exposure duration
Exposure time	ET	0.5	8	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance and construction workers
Fraction transferred from surface to skin	FTSS	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Surface area	SA _d	490	490	490/2146	cm²/event	palms only for aircraft and facility maintenance worker; face, forearms and hands for construction worker
Absorption dermal	ABS _d	0.14	0.14	0.14	fraction	USEPA 2004
Contact rate	CR _d	1	1	1/0.125	events/hr	for construction worker, (i) palms = 1 contact per hour and (ii) face, forearms, hands [no palms] = 0.125 contact per hour
Transfer coefficient	TC	490	490	758	cm²/hr	SA _d × CR _d ; summed TC for construction worker (palms + face, forearms, hands [no palms])
Reference dose (absorbed)	CSF _{abs}	2.00E-05	2.00E-05	2.00E-05	kg-da/mg	USEPA 2013
Target Hazard Index	THI	1.0	1.0	1.0		point of departure
Combined Oral & Dermal	CSL ₁₀₀ NC	8.8	1.4	3.9	ug/100 cm²	CSL ₁₀₀

ATTACHMENT D3

INTERIOR DUST RBSLS CALCULATIONS FOR AROCLOR 1254 - CANCER

Ingestion

		UAL Workers				
Parameter	Abbrev	Aircraft	Facility	Const	Units	Reference
Contaminant surface loading	CSL	0.0234	0.0037	2.4333	ug/cm²	Calculated Eq D-2
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	2.34	0.37	243.3	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	100	30	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance and 1 month project for construction workers
Exposure duration	ED	25	25	1	yr	USEPA 2004; assumes1 yr for construction worker
Averaging time (carcinogens)	AT	70	70	70	yr	USEPA 2004
Exposure time	ET	0.5	8	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance and construction workers
Fraction transferred from surface to skin	FTSS	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Mouthing surface area	SA	49	49	49	cm²/event	3 fingers; COPC Committee of the WTC Task Force 2003
Frequency of hand to mouth events	FQ	1	1	1	events/hr	COPC Committee of the WTC Task Force 2003
Saliva extraction factor	SE	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Cancer slope factor for absorbed dose	CSF _{abs}	2.0	2.0	2.0	kg-da/mg	USEPA 2013
Target cancer risk	TCR	1.00E-06	1.00E-06	1.00E-06	probab	point of departure

Dermal Uptake

		UAL Workers				
Parameter	Abbrev	Aircraft	Facility	Const	Units	Reference
Contaminant surface loading	CSL	0.01	0.00	0.07	ug/cm²	Calculated Eq D-3
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	0.83	0.13	7.02	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	100	30	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance and 1 month project for construction workers
Exposure duration	ED	25	25	1	yr	USEPA 2004; assumes1 yr for construction worker
Averaging time (carcinogens)	AT	70	70	70	yr	USEPA 2004
Exposure time	ET	0.5	8	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance and construction workers
Fraction transferred from surface to skin	FTSS	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Surface area	SA _d	490	490	490/2146	cm²/event	palms only for aircraft and facility maintenance worker; face, forearms and hands for construction worker
Absorption dermal	ABS _d	0.14	0.14	0.14	fraction	USEPA 2004
Contact rate	CR _d	1	1	1/0.125	events/hr	for construction worker, (i) palms = 1 contact per hour and (ii) face, forearms, hands [no palms] = 0.125 contact per hour
Transfer coefficient	TC	490	490	758	cm²/hr	SA _d x CR _d ; summed TC for construction worker (palms + face, forearms, hands [no palms])
Cancer slope factor for absorbed dose	CSF _{abs}	2.0	2.0	2.0	kg-da/mg	USEPA 2013
Target cancer risk	TCR	1.00E-06	1.00E-06	1.00E-06	probab	point of departure
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL ₁₀₀ CR	0.61	0.096	6.8	ug/100 cm²	CSL ₁₀₀
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL ₁₀₀ NC	8.8	1.4	3.9	ug/100 cm²	CSL ₁₀₀
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL ₁₀₀ Lo	0.61	0.10	3.9	ug/100 cm²	CSL ₁₀₀

ATTACHMENT D4

INTERIOR DUST RBSLS CALCULATIONS FOR AROCLOR 1016 - NON-CANCER

Ingestion

		UAL Worker				
Parameter	Abbrev	Aircraft	Facility	Const	Units	Reference
Contaminant surface loading	CSL	1.168	0.183	0.608	ug/cm2	Calculated Eq D-1
Contaminant surface loading (ug/100 cm²)	CSL100	117	18.3	61	ug/100 cm2	CSL x 100
Body Weight	BW	70	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	100	30	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance and 1 month project for construction workers
Exposure duration	ED	25	25	1	yr	USEPA 2004; assumes1 yr for construction worker
Averaging time (NC)	AT	25	25	1	yr	equal to exposure duration
Exposure time	ET	0.5	8	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance and construction workers
Fraction transferred from surface to skin	FTSS	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Mouthing surface area	SA	49	49	49	cm²/event	3 fingers; COPC Committee of the WTC Task Force 2003
Frequency of hand to mouth events	FQ	1	1	1	events/hr	COPC Committee of the WTC Task Force 2003
Saliva extraction factor	SE	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Reference Dose (absorbed)	RfD _{abs}	7.00E-05	7.00E-05	7.00E-05	kg-da/mg	USEPA 2013
Target Hazard Index	THI	1.00E+00	1.00E+00	1.00E+00		point of departure

Dermal Uptake

		UAL Worker				
Parameter	Abbrev	Aircraft	Facility	Const	Units	Reference
Contaminant surface loading	CSL	0.417	0.065	0.141	ug/cm2	Calculated Eq D-2
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	42	6.52	14	ug/100 cm2	CSL x 100
Body Weight	BW	70	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	100	30	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance and 1 month project for construction workers
Exposure duration	ED	25	25	1	yr	USEPA 2004; assumes1 yr for construction worker
Averaging time (NC)	AT	25	25	1	yr	equal to exposure duration
Exposure time	ET	0.5	8	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance and construction workers
Fraction transferred from surface to skin	FTSS	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Surface area	SA _d	490	490	490/2146	cm²/event	palms only for aircraft and facility maintenance worker; face, forearms and hands for construction worker
Absorption dermal	ABS _d	0.14	0.14	0.14	fraction	USEPA 2004
Contact rate	CR _d	1	1	1/0.125	events/hr	for construction worker, (i) palms = 1 contact per hour and (ii) face, forearms, hands [no palms] = 0.125 contact per hour
Transfer coefficient	TC	490	490	758	cm²/hr	SA _d x CR _d ; summed TC for construction worker (palms + face, forearms, hands [no palms])
Reference dose (absorbed)	RfD _{abs}	7.00E-05	7.00E-05	7.00E-05	kg-da/mg	USEPA 2013
Target Hazard Index	THI	1.00E+00	1.00E+00	1.00E+00		point of departure
Combined Oral & Dermal	CSL ₁₀₀ NC	30.7	4.8	11.4	ug/100 cm²	CSL ₁₀₀

ATTACHMENT D5

INTERIOR DUST RBSLS CALCULATIONS FOR AROCLOR 1016 - CANCER

Ingestion

		UAL Worker				
Parameter	Abbrev	Aircraft	Facility	Const	Units	Reference
Contaminant surface loading	CSL	0.667	0.104	8.690	ug/cm²	Calculated Eq D-2
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	67	10	869	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	100	30	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance and 1 month project for construction workers
Exposure duration	ED	25	25	1	yr	USEPA 2004; assumes1 yr for construction worker
Averaging time (carcinogens)	AT	70	70	70	yr	USEPA 2004
Exposure time	ET	0.5	8	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance and construction workers
Fraction transferred from surface to skin	FTSS	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Mouthing surface area	SA	49	49	49	cm²/event	3 fingers; COPC Committee of the WTC Task Force 2003
Frequency of hand to mouth events	FQ	1	1	1	events/hr	COPC Committee of the WTC Task Force 2003
Saliva extraction factor	SE	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Cancer slope factor for absorbed dose	CSF _{abs}	0.07	0.07	0.07	kg-da/mg	USEPA 2013
Target cancer risk	TCR	1.00E-06	1.00E-06	1.00E-06	probab	point of departure

Dermal Uptake

		UAL Worker				
Parameter	Abbrev	Aircraft	Facility	Const	Units	Reference
Contaminant surface loading	CSL	0.24	0.04	2.01	ug/cm²	Calculated Eq D-3
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	24	3.72	201	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	100	30	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance and 1 month project for construction workers
Exposure duration	ED	25	25	1	yr	USEPA 2004; assumes1 yr for construction worker
Averaging time (carcinogens)	AT	70	70	70	yr	USEPA 2004
Exposure time	ET	0.5	8	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance and construction workers
Fraction transferred from surface to skin	FTSS	0.5	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Surface area	SA _d	490	490	490/2146	cm²/event	palms only for aircraft and facility maintenance worker; face, forearms and hands for construction worker
Absorption dermal	ABS _d	0.14	0.14	0.14	fraction	USEPA 2004
Contact rate	CR _d	1	1	1/0.125	events/hr	for construction worker, (i) palms = 1 contact per hour and (ii) face, forearms, hands [no palms] = 0.125 contact per hour
Transfer coefficient	TC	490	490	758	cm²/hr	SA _d x CR _d ; summed TC for construction worker (palms + face, forearms, hands [no palms])
Cancer slope factor for absorbed dose	CSF _{abs}	0.1	0.1	0.1	kg-da/mg	USEPA 2013
Target cancer risk	TCR	1.00E-06	1.00E-06	1.00E-06	probab	point of departure
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL100 CR	18	2.7	163	ug/100 cm²	CSL ₁₀₀
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL100 NC	31	4.8	11	ug/100 cm²	CSL ₁₀₀
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL100 Lo	18	2.7	11	ug/100 cm²	CSL ₁₀₀

ATTACHMENT D6

DRAIN WIPE RBSLS CALCULATIONS FOR AROCLOR 1254 - NON-CANCER

Ingestion

		UAL Worker			
Parameter	Abbrev	Aircraft	Facility	Units	Reference
Contaminant surface loading	CSL	2.0	2.61	ug/cm²	Calculated Eq D-1
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	200	261	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	2	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance worker
Exposure duration	ED	25	25	yr	USEPA 2004
Averaging time (NC)	AT	25	25	yr	equal to exposure duration
Exposure time	ET	0.083	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance worker
Fraction transferred from surface to skin	FTSS	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Mouthing surface area	SA	49	49	cm²/event	3 fingers; COPC Committee of the WTC Task Force 2003
Frequency of hand to mouth events	FQ	1	1	events/hr	COPC Committee of the WTC Task Force 2003
Saliva extraction factor	SE	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Reference Dose (absorbed)	RfD _{abs}	2.00E-05	2.00E-05	kg-da/mg	USEPA 2013
Target Hazard Index	THI	1.0	1.0		point of departure

Dermal Uptake

		UAL Worker			
Parameter	Abbrev	Aircraft	Facility	Units	Reference
Contaminant surface loading	CSL	0.715	0.93	ug/cm²	Calculated Eq D-2
Contaminant surface loading (ug/100 cm2)	CSL ₁₀₀	72	93	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	2	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance worker
Exposure duration	ED	25	25	yr	USEPA 2004
Averaging time (NC)	AT	25	25	yr	equal to exposure duration
Exposure time	ET	0.083	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance worker
Fraction transferred from surface to skin	FTSS	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Surface area	SA _d	490	490	cm²/event	palms only
Absorption dermal	ABS _d	0.14	0.14	fraction	USEPA 2004
Contact rate	CR _d	1	1	events/hr	see FQ
Transfer coefficient	TC	490	490	cm²/hr	SA _d x CR _d
Reference dose (absorbed)	RfD _{abs}	2.00E-05	2.00E-05	kg-da/mg	USEPA 2013
Target Hazard Index	THI	1.0	1.0		point of departure

Combined Oral & Dermal	CSL ₁₀₀ NC	53	69	ug/100 cm²	CSL ₁₀₀
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ATTACHMENT D7

DRAIN WIPE RBSLS CALCULATIONS FOR AROCLOR 1254 - CANCER

Ingestion

		UAL Worker			
Parameter	Abbrev	Aircraft	Facility	Units	Reference
Contaminant surface loading	CSL	0.14	0.18	ug/cm²	Calculated Eq D-2
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	14	18	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	2	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance worker
Exposure duration	ED	25	25	yr	USEPA 2004
Averaging time (carcinogens)	AT	70	70	yr	USEPA 2004
Exposure time	ET	0.083	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance worker
Fraction transferred from surface to skin	FTSS	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Mouthing surface area	SA	49	49	cm²/event	3 fingers; COPC Committee of the WTC Task Force 2003
Frequency of hand to mouth events	FQ	1	1	events/hr	COPC Committee of the WTC Task Force 2003
Saliva extraction factor	SE	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Cancer slope factor for absorbed dose	CSF _{abs}	2.0	2.0	kg-da/mg	USEPA 2013
Target cancer risk	TCR	1.00E-06	1.00E-06	probab	point of departure

Dermal Uptake

		UAL Worker			
Parameter	Abbrev	Aircraft	Facility	Units	Reference
Contaminant surface loading	CSL	0.05	0.07	ug/cm2	Calculated Eq D-3
Contaminant surface loading (ug/100 cm2)	CSL ₁₀₀	5.0	6.52	ug/100 cm2	CSL x 100
Body Weight	BW	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	2	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance worker
Exposure duration	ED	25	25	yr	USEPA 2004
Averaging time (carcinogens)	AT	70	70	yr	USEPA 2004
Exposure time	ET	0.083	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance worker
Fraction transferred from surface to skin	FTSS	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Surface area	SA _d	490	490	cm²/event	palms only
Absorption dermal	ABS _d	0.14	0.14	fraction	USEPA 2004
Contact rate	CR _d	1	1	events/hr	see FQ
Transfer coefficient	TC	490	490	cm²/hr	SA _d x CR _d
Cancer slope factor for absorbed dose	CSF _{abs}	2.0	2.0	kg-da/mg	USEPA 2013
Target cancer risk	TCR	1.00E-06	1.00E-06	probab	point of departure
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL ₁₀₀ CR	3.7	4.8	ug/100 cm²	CSL ₁₀₀
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL ₁₀₀ NC	53	69	ug/100 cm²	CSL ₁₀₀
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL ₁₀₀ Lo	3.7	4.8	ug/100 cm2	CSL ₁₀₀

ATTACHMENT D8

DRAIN WIPE RBSLS CALCULATIONS FOR AROCLOR 1016 - NON-CANCER

Ingestion

		UAL Worker			
Parameter	Abbrev	Aircraft	Facility	Units	Reference
Contaminant surface loading	CSL	7.01	9.13	ug/cm²	Calculated Eq D-1
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	701	913	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	2	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance worker
Exposure duration	ED	25	25	yr	USEPA 2004
Averaging time (NC)	AT	25	25	yr	equal to exposure duration
Exposure time	ET	0.083	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance worker
Fraction transferred from surface to skin	FTSS	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Mouthing surface area	SA	49	49	cm²/event	3 fingers; COPC Committee of the WTC Task Force 2003
Frequency of hand to mouth events	FQ	1	1	events/hr	COPC Committee of the WTC Task Force 2003
Saliva extraction factor	SE	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Reference Dose (absorbed)	RfD _{abs}	7.00E-05	7.00E-05	kg-da/mg	USEPA 2013
Target Hazard Index	THI	1.00E+00	1.00E+00		point of departure

Dermal Uptake

		UAL Worker			
Parameter	Abbrev	Aircraft	Facility	Units	Reference
Contaminant surface loading	CSL	2.50	3.26	ug/cm2	Calculated Eq D-2
Contaminant surface loading (ug/100 cm2)	CSL ₁₀₀	250	326	ug/100 cm2	CSL x 100
Body Weight	BW	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	2	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance worker
Exposure duration	ED	25	25	yr	USEPA 2004
Averaging time (NC)	AT	25	25	yr	equal to exposure duration
Exposure time	ET	0.083	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance worker
Fraction transferred from surface to skin	FTSS	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Surface area	SA _d	490	490	cm²/event	palms only
Absorption dermal	ABS _d	0.14	0.14	fraction	USEPA 2004
Contact rate	CR _d	1	1	events/hr	see FQ
Transfer coefficient	TC	490	490	cm²/hr	SA _d x CR _d
Reference dose (absorbed)	RfD _{abs}	7.00E-05	7.00E-05	kg-da/mg	USEPA 2013
Target Hazard Index	THI	1.00E+00	1.00E+00		point of departure
Combined Oral & Dermal	CSL ₁₀₀ NC	184	240	ug/100 cm²	CSL ₁₀₀

ATTACHMENT D9

DRAIN WIPE RBSLS CALCULATIONS FOR AROCLOR 1016 - CANCER

Ingestion

		UAL Worker			
Parameter	Abbrev	Aircraft	Facility	Units	Reference
Contaminant surface loading	CSL	4.005	5.214	ug/cm²	Calculated Eq D-2
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	400	521	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	2	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance worker
Exposure duration	ED	25	25	yr	USEPA 2004
Averaging time (carcinogens)	AT	70	70	yr	USEPA 2004
Exposure time	ET	0.083	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance worker
Fraction transferred from surface to skin	FTSS	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Mouthing surface area	SA	49	49	cm²/event	3 fingers; COPC Committee of the WTC Task Force 2003
Frequency of hand to mouth events	FQ	1	1	events/hr	COPC Committee of the WTC Task Force 2003
Saliva extraction factor	SE	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Cancer slope factor for absorbed dose	CSF _{abs}	0.07	0.07	kg-da/mg	USEPA 2013
Target cancer risk	TCR	1.00E-06	1.00E-06	probab	point of departure

Dermal Uptake

		UAL Worker			
Parameter	Abbrev	Aircraft	Facility	Units	Reference
Contaminant surface loading	CSL	1.43	1.86	ug/cm²	Calculated Eq D-3
Contaminant surface loading (ug/100 cm²)	CSL ₁₀₀	143	186.22	ug/100 cm²	CSL x 100
Body Weight	BW	70	70	kg	USEPA 2004 (as directed by USEPA Region 9)
Exposure frequency	EF	250	2	da/yr	USEPA 2004 for aircraft worker; assumes 2 days/week for facility maintenance worker
Exposure duration	ED	25	25	yr	USEPA 2004
Averaging time (carcinogens)	AT	70	70	yr	USEPA 2004
Exposure time	ET	0.083	8	hr/da	assumes 2.5 hr/week contact with dusty areas for aircraft worker and entire day for facility maintenance worker
Fraction transferred from surface to skin	FTSS	0.5	0.5	fraction	COPC Committee of the WTC Task Force 2003
Surface area	SA _d	490	490	cm²/event	palms only
Absorption dermal	ABS _d	0.14	0.14	fraction	USEPA 2004
Contact rate	CR _d	1	1	events/hr	see FQ
Transfer coefficient	TC	490	490	cm²/hr	SAd x CRd
Cancer slope factor for absorbed dose	CSF _{abs}	0.1	0.1	kg-da/mg	USEPA 2013
Target cancer risk	TCR	1.00E-06	1.00E-06	probab	point of departure
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL ₁₀₀ CR	105	137	ug/100 cm²	CSL ₁₀₀
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL ₁₀₀ NC	184	240	ug/100 cm²	CSL ₁₀₀
CSL100 - Combined Oral & Dermal (ug/100 cm²)	CSL ₁₀₀ Lo	105	137	ug/100 cm²	CSL ₁₀₀

Appendix E
USEPA Conditions of Approval

Table E-1
Summary of USEPA Conditions
2013 Remediation and Investigation Buildings 10 and 15
San Francisco Maintenance Center
United Airlines

Number ¹	Condition of Approval	Description	United Response
1	IW Lines and Drains	A. Verify Lone Drains	Completed and presented on Figures 2 through 5
		B. Verify Building 10 IW Lines and Drains	Completed and presented on Figures 2 through 5
		C. Verify most downgradient Building 15 Manhole	Completed and presented on Figures 2 through 5
2	Waste Management	Provide point of contact for waste disposal	Contact information provided in Letter Response by United, dated 3 May 2013
3	Dermal Absorption	Resubmit calculations to address risk from dermal absorption	Dermal absorption discussion between ERM and USEPA. Concurrence from John Beach (USEPA) dated 16 May 2013
4	Drain Grate Wipe Samples	Use of standard size template or normalization of results if an area of 10 x 10 centimeter squared (cm ²) is not possible	Condition met. Results normalized to 10 x 10 cm ² area where template not possible.
5	Target Cancer Risk	10 ⁻⁶ cancer risk - point of departure	Calculations reviewed, revised, and sent to USEPA. The established RBSL is based on a 10 ⁻⁶ cancer risk
6	RBSLs for Total PCBs	Evaluate exposure based on Total PCBs	Risk screening includes individual Aroclors and Total PCBs
7	Concrete and Former Utility Pit Sampling	A. Concrete Sampling - Prepare and submit a workplan for concrete surfaces	Letter Response by United, dated 3 May 2013, recommended proceeding with the proposed remedial action and assessment work in Building 10 and 15.
		B. Former Air/Electric Access Pit Sampling - remediate and sample (pre- and post-remediation) each utility pit	Completed and documented in Completion Report.
8	Quality Assurance/ Quality Control Samples	Follow Matrix Spike/Matrix Spike Duplicate protocols in approval letter.	Performed per USEPA requirements.
9	Media of Concern	The term used in the Workplan, "Media of concern", is undefined.	This term "media of concern" is not used in Completion Report
10	Completion Report	Provide completion report to document activities, provide laboratory data, present risk evaluation and conclusion. 30 days after completion of work.	Completion Report followed USEPA instructions on report contents (USEPA email of 22 November 2013). United provided continuous communication with USEPA during project. Extension request confirmed by USEPA.

1. Conditions referenced by number, consistent with USEPA's Conditional Approval Letter dated 17 April 2013

Appendix F
Photo Documentation



Industrial waste floor drain in Building 10



Vacuum Truck used to remove accumulated water and debris from manhole (outside Building 10)



Building 10 manhole



Line cleaning, use of jetting lance



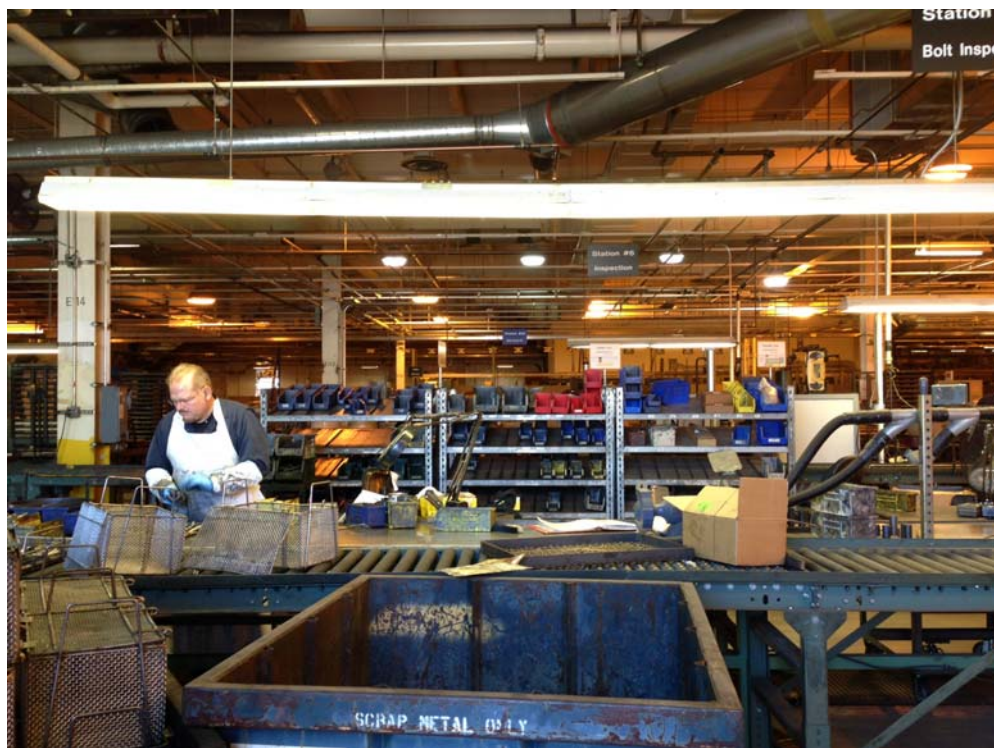
Visual observations of rinsate becoming clear



Collection of rinsate sample at Building 10 manhole



Dust sample B10-D1, Tire shop electrical box sample top



Dust sample B10-D2, Building 10 tire shop sample overhead light



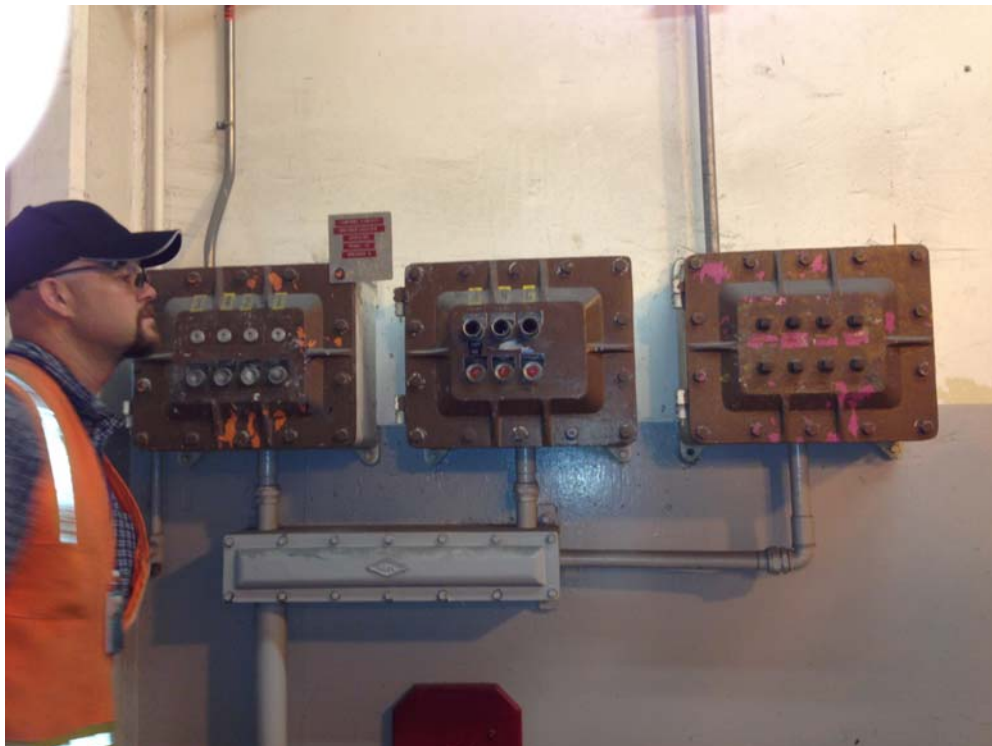
Dust sample B10-D3 Blue cabinets sample top



Dust sample B10-D4, Paint shop sample corner top of beige cabinet



Dust sample B10-D5, Paint shop HVAC vent sample top



Dust sample B10-D6, Paint shop controls sample top



Dust sample B10-D7, Paint shop north wall vent sample top



Dust sample B10-D8, Electrical switches box sample top



Dust sample B10-D9, Gray shelving sample top (B10 west)



Dust sample B10-D10 Close-up storage shed sample top



Dust sample B10-D10 at rear corner, storage shed sample top